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ELECTRONIC PRINCIPLES AVIONICS SENSOR SYSTEMS CAREER LADDER AFS--ETC(U)
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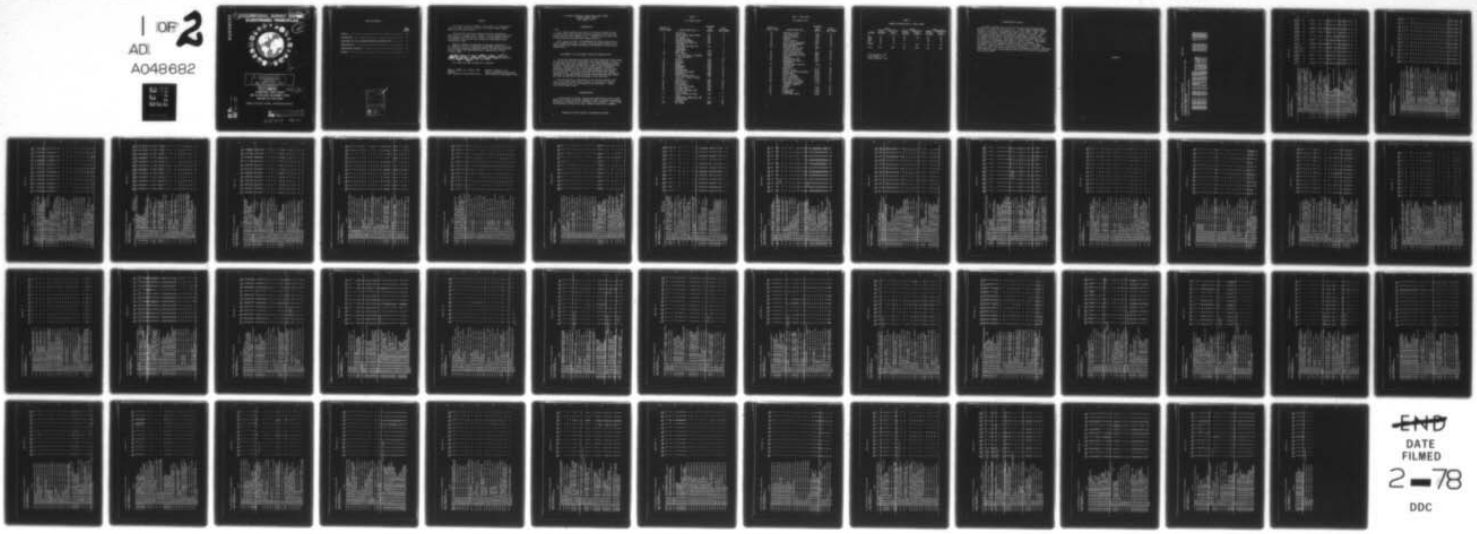

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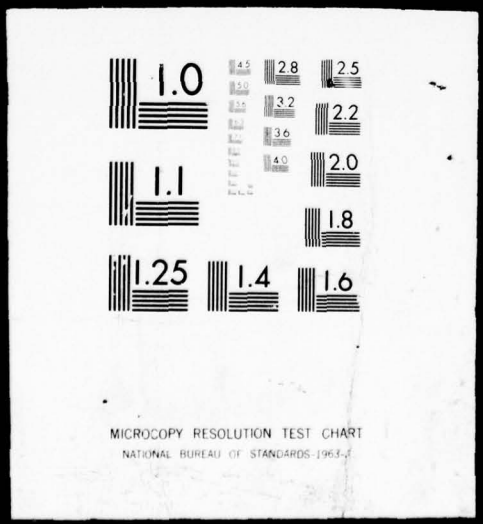

Jun-Aug 77.

(9) OCCUPATIONAL SURVEY REPORT.

ELECTRONIC PRINCIPLES

(2) 85

(6) ELECTRONIC PRINCIPLES
AVIONICS SENSOR SYSTEMS
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OCCUPATIONAL SURVEY BRANCH
USAF OCCUPATIONAL MEASUREMENT CENTER
LACKLAND AFB TEXAS 78236

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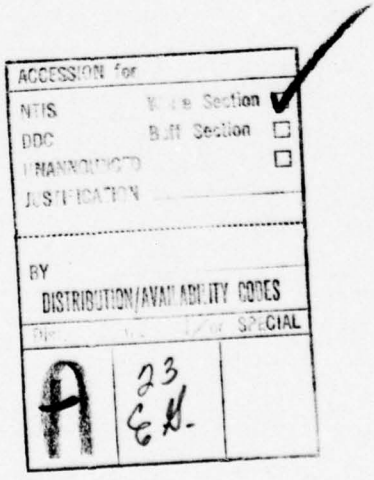

PREFACE

This report presents a summary of the results of a detailed Air Force Electronic Principles Survey of the Avionics Sensor Systems Specialty, AFSC 329X0 A and B.

The Electronic Principles Inventory (EPI) was developed by Major Thomas J. O'Connor and Mr. Hendrick W. Ruck and the survey data were analyzed by Captain David S. Street. All are members of the Occupational Survey Branch, USAF Occupational Measurement Center, Lackland AFB, Texas.

Computer programs for analyzing the data were designed by Dr. Raymond E. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Distribution of this report is made upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

JAMES A. TURNER, JR., Colonel, USAF
Commander
USAF Occupational Measurement Center

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ELECTRONIC PRINCIPLES OCCUPATIONAL SURVEY REPORT
AVIONICS SENSOR SYSTEMS
AFSC 329X0 A and B

INTRODUCTION

This report summarizes the results of the administration of the Electronic Principles Inventory to airmen assigned to Avionics Sensor Systems Specialty (AFSC 329X0 A and B). The data for this report were collected during the period June - August 1977.

This report describes: (1) development and administration of the survey instrument; and (2) electronic principles used by DAFSC 5-skill level personnel both CONUS and overseas and assigned to selected major commands.

DEVELOPMENT OF THE ELECTRONIC PRINCIPLES INVENTORY (EPI)

The EPI was developed by personnel from the Occupational Survey Branch who were well qualified in theoretical physics and electronics, as well as in task analysis and survey development. Over 300 maintenance personnel from SAC, TAC, ADC, MAC, and AFCS participated in the development of the inventory. Representing the five ATC training centers, electronics experts who averaged 12 years of maintenance experience and four years of electronic principles instruction experience spent several weeks refining the EPI. In addition, personnel at the Electrical Engineering Department of the USAF Academy and the Air Force Human Resources Laboratory were consulted during the development of the inventory.

The final version of the EPI used in this survey contained 1,257 items in 62 subject matter areas covering all electronic principles training given at the five ATC technical training centers. Table 1 lists the 62 subject areas.

ADMINISTRATION

The Electronic Principles Inventory was administered by mail to AFSC 329X0 A and B airmen worldwide. Responses from 67 individuals represented 20 percent of the total of all AFSC 329X0 A and B personnel. Table 2 shows the percentage distribution by major command of the survey incumbents.

TABLE 1

EPI SUBJECT AREAS

SEQUENCE OF SUBJECT AREAS	SUBJECT AREA TITLE	BEGINNING ITEM NUMBER	GPSUM PAGE NUMBER
1	MATHEMATICS	A1	2
2	DIRECT CURRENT AND VOLTAGE	A15	2
3	RESISTANCE	A24	2
4	MULTIMETER USES	B52	3
5	ALTERNATING CURRENT	B61	4
6	INDUCTORS AND INDUCTIVE REACTANCE	B67	4
7	CAPACITORS AND CAPACITIVE REACTANCE	C92	5
8	TRANSFORMERS	C128	6
9	MAGNETISM	C171	7
10	RCL CIRCUITS	D185	8
11	SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)	D229	10
12	FILTERS	D239	10
13	COUPLING	E261	11
14	SOLDERING	E273	11
15	RELAYS	E295	12
16	MICROPHONES	F314	12
17	SPEAKERS	F327	13
18	OSCILLOSCOPES	F342	13
19	SEMICONDUCTOR DIODES	G354	13
20	TRANSISTORS	G404	15
21	TRANSISTOR AMPLIFIERS	G428	16
22	SOLID-STATE SPECIAL PURPOSE DEVICES	H477	19
23	POWER SUPPLIES	H483	19
24	OSCILLATORS	H512	19
25	MULTIVIBRATORS	I539	20
26	LIMITERS AND CLAMPERS	I555	21
27	ELECTRON TUBES	I565	21
28	ELECTRON TUBE AMPLIFIERS AND CIRCUITS	J609	22
29	SPECIAL PURPOSE ELECTRON TUBES	J616	23
30	HETERODYNING, MODULATION, AND DEMODULATION	J632	23
31	AM SYSTEMS	K638	23
32	FM SYSTEMS	K666	24

TABLE 1 (CONTINUED)

EPI SUBJECT AREAS

SEQUENCE OF SUBJECT AREAS	SUBJECT AREA TITLE	BEGINNING ITEM NUMBER-	GPSUM PAGE NUMBER
33	NUMBERING SYSTEMS	K685	25
34	LOGIC FUNCTIONS	L695	25
35	BOOLEAN EQUATIONS	L708	26
36	COUNTERS	L733	27
37	TIMING CIRCUITS	M757	27
38	USE OF SIGNAL GENERATORS	M769	28
39	MOTORS AND GENERATORS	M779	28
40	METER MOVEMENTS	N808	29
41	SATURABLE REACTORS AND MAGNETIC AMPLIFIERS	N818	29
42	WAVESHAPING CIRCUITS	N834	30
43	SINGLE SIDEBAND SYSTEMS	0845	30
44	PULSE MODULATION SYSTEMS	0875	31
45	ANTENNAS	0914	32
46	TRANSMISSION LINES	P953	34
47	WAVEGUIDES AND CAVITY RESONATORS	P984	35
48	MICROWAVE AMPLIFIERS AND OSCILLATORS	P1034	37
49	REGISTERS	Q1110	39
50	STORAGE DEVICES	Q1117	40
51	DIGITAL TO ANALOG CONVERTERS	Q1126	40
52	PHANTASTRONS	Q1140	41
53	SCHMITT TRIGGERS	R1141	41
54	CABLE FABRICATION	R1144	41
55	INPUT/OUTPUT DEVICES	S1146	41
56	PHOTO SENSITIVE DEVICES	S1149	41
57	SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS)	S1150	41
58	INFRARED	T1159	41
59	LASERS	T1186	42
60	DISPLAY TUBES	T1220	43
61	PROGRAMMING	U1234	43
62	DB AND POWER RATIOS	U1255	44

TABLE 2

COMMAND REPRESENTATION OF SURVEY SAMPLE

COMMAND	329X0A		329X0B		329X0 A and B	
	PERCENT ASSIGNED	PERCENT OF SAMPLE	PERCENT ASSIGNED	PERCENT OF SAMPLE	PERCENT ASSIGNED	PERCENT OF SAMPLE
TAC	41	43	48	52	45	46
USAFE	19	33	36	8	28	24
PACAF	20	10	11		15	6
SAC	14	5			6	3
OTHERS	6	9	5	40	6	21
TOTAL	100	100	100	100	100	100

Total Assigned - 330
Total Sample - 67
Percent Sampled - 20%

PRESENTATION OF RESULTS

Personnel responded "yes" or "no" to the 1,257 electronic principles questions as related to their present job. A Group Summary (GPSUM) computer printout is provided in the Appendix portion of this report. Page 1 of the GPSUM lists the twelve selected groups identified for this report. Pages 2-44 show the percentage of the incumbents responding to the EPI items. The computer program results display the percent members answering "yes" to the subject area questions. The reader can locate a specific subject area by referring to the Appendix page number as listed in Table 1. For example, the Transformers area results are given on page 6 of the GPSUM. The percentage of survey respondents indicating use of specific electronic principles ranged from high in areas such as Soldering (p. 12) and Oscilloscopes (p. 13) to low in areas such as AM and FM Systems (pp. 24-25). Additional AFSC 329X0A and B data can be obtained upon request to the Chief, Occupational Survey Branch (OMY).

APPENDIX

TABULATION OF ELECTRONIC PRINCIPLES UTILIZATION DATA FOR SELECTED GROUPS
IN THE 329X0A/B CAREER FIELD.

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

GROUP IDENTITY =	SPC202	ALL AIRMEN DAFSC 32950A					CONTAINING	42	MEMBERS.
GROUP IDENTITY =	SPC203	ALL AIRMEN DAFSC 32950B					CONTAINING	25	MEMBERS.
GROUP IDENTITY =	SPC204	ALL AIRMEN DAFSC 32950A	STATIONED	IN	CONUS		CONTAINING	23	MEMBERS.
GROUP IDENTITY =	SPC205	ALL AIRMEN DAFSC 32950B	STATIONED	IN	CONUS		CONTAINING	21	MEMBERS.
GROUP IDENTITY =	SPC206	ALL AIRMEN DAFSC 32950A	STATIONED	OVERSEAS			CONTAINING	19	MEMBERS.
GROUP IDENTITY =	SPC207	ALL AIRMEN DAFSC 32950B	STATIONED	OVERSEAS			CONTAINING	4	MEMBERS.
GROUP IDENTITY =	SPC210	ALL ALL AMN DAFSC 32950A	ASSIGNED	TO	TAC		CONTAINING	18	MEMBERS.
GROUP IDENTITY =	SPC211	ALL ALL AMN DAFSC 32950A	ASSIGNED	TO	USAFE		CONTAINING	14	MEMBERS.
GROUP IDENTITY =	SPC212	ALL ALL AMN DAFSC 32950A	ASSIGNED	TO	SAC		CONTAINING	2	MEMBERS.
GROUP IDENTITY =	SPC213	ALL ALL AMN DAFSC 32950A	ASSIGNED	TO	PACAF		CONTAINING	4	MEMBERS.
GROUP IDENTITY =	SPC214	ALL ALL AMN DAFSC 32950B	ASSIGNED	TO	TAC		CONTAINING	13	MEMBERS.
GROUP IDENTITY =	SPC215	ALL ALL AMN DAFSC 32950B	ASSIGNED	TO	USAFE		CONTAINING	2	MEMBERS.

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
		MATHEMATICS												
A	1	A1-01 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10.	88	64	83	57	95	100	83	100	100	75	46	100
A	2	A1-02 DO YOU USE PUBLICATIONS, SUCH AS A TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB.	76	24	78	14	74	75	78	71	100	75	15	50
A	3	A1-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS.	40	20	52	14	26	50	50	14	50	50	15	50
A	4	A1-04 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY.	17	8	17	5	16	25	22	7	0	25	8	0
A	5	A1-05 DO YOU SOLVE FOR UNKNOWN QUANTITIES.	33	16	43	10	21	50	33	7	100	50	15	50
A	6	A1-06 DO YOU CONVERT NUMBERS TO LOGARITHMS.	10	4	4	0	16	25	6	7	0	25	0	0
A	7	A1-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF CALCULATIONS.	12	4	4	0	21	25	6	21	0	0	0	0
A	8	A1-08 DO YOU SOLVE QUADRATIC EQUATIONS.	7	4	4	0	11	25	6	0	0	25	0	0
A	9	A1-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS.	7	4	4	0	11	25	6	0	0	25	0	0
A	10	A1-10 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES.	21	8	22	5	21	25	11	21	50	0	8	0
A	11	A1-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT.	48	8	61	5	32	25	61	21	50	50	8	0
A	12	A1-12 DO YOU DETERMINE AREAS OF PLANE FIGURES.	10	8	9	5	11	25	11	0	0	25	8	0
A	13	A1-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS.	10	4	9	0	11	25	11	7	0	25	0	0
A	14	A1-14 DO YOU SOLVE OR USE PROPORTIONS.	24	8	30	5	16	25	39	14	0	25	8	0
		DIRECT CURRENT AND VOLTAGE												
A	15	A2-01 DO YOU USE THE TERM VOLTAGE OR VOLT (V).	98	84	96	81	100	100	94	100	100	100	69	100
A	16	A2-02 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF).	43	36	43	29	42	75	44	36	50	50	31	50
A	17	A2-03 DO YOU USE THE TERM OHM.	100	84	100	81	100	100	100	100	100	100	69	100
A	18	A2-04 DO YOU USE THE TERM ION.	29	0	22	0	37	0	28	21	0	75	0	0
A	19	A2-05 DO YOU USE THE TERM DYNE.	12	4	17	5	5	0	22	0	0	25	0	0
A	20	A2-06 DO YOU USE THE TERM AMPERE.	90	76	87	76	95	75	89	100	100	75	62	50
A	21	A2-07 DO YOU USE THE TERM NEUTRON.	24	8	17	5	32	25	22	21	0	50	8	0
A	22	A2-08 DO YOU USE THE TERM COULOMB.	26	4	22	5	32	0	28	36	0	25	0	0
A	23	A2-09 DO YOU USE THE TERM PROTON.	26	8	17	5	37	25	22	29	0	50	8	0
		RESISTANCE												
A	24	A3-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB.	88	68	87	62	89	100	89	93	100	75	38	100
A	25	A3-02 DO YOU INSPECT RESISTORS.	86	64	78	57	95	100	83	93	50	100	38	100
A	26	A3-03 DO YOU CLEAN RESISTORS.	64	28	65	24	63	50	67	50	50	100	23	0
A	27	A3-04 DO YOU ADJUST RESISTORS.	96	60	91	52	100	100	94	100	100	100	31	100
A	28	A3-05 DO YOU CHECK OHMIC VALUE OF RESISTORS.	88	68	83	62	95	100	89	93	50	100	38	100
A	29	A3-06 DO YOU REMOVE OR REPLACE RESISTORS.	81	64	78	57	84	100	83	79	50	100	38	100
A	30	A3-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS ON ANY TASKS YOU PERFORM.	48	24	43	19	53	50	44	43	50	75	15	50
A	31	A3-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS SUCH AS FIXED RESISTOR SYMBOLS OR TAPPED RESISTOR SYMBOLS.	86	68	78	62	96	100	83	93	50	100	46	100
A	32	A3-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK WITH AS CARBON, FIXED WIRE, SLIDE TAP, RHEOSTAT, OR POTENTIOMETER.	88	60	83	52	95	100	83	93	100	100	38	100
A	33	A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE.	83	60	78	52	89	100	83	86	50	100	38	100

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
A	34	A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE.	79	64	74	67	74	100	78	64	50	100	38	100
A	35	A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE.	19	4	22	5	16	0	22	14	50	25	8	0
A	36	A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO ACHIEVE A SPECIFIC VOLTAGE.	31	16	26	10	37	50	28	36	50	25	8	0
A	37	A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES	90	68	87	62	95	100	94	100	50	75	38	100
A	38	A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS.	57	44	48	43	68	50	56	64	50	75	38	0
A	39	A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS.	60	36	52	33	68	50	56	64	50	75	31	0
A	40	A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS.	57	40	52	38	63	50	56	57	50	75	31	0
A	41	A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS.	50	36	48	33	53	50	50	50	50	50	31	0
A	42	A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS.	57	40	48	38	68	50	50	64	50	75	38	0
A	43	A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS.	55	40	43	38	68	50	50	64	50	75	31	0
A	44	A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	57	40	52	38	63	50	56	57	50	75	31	0
A	45	A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	48	40	39	38	58	50	44	60	50	75	31	0
A	46	A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS.	50	36	48	33	53	50	50	50	50	50	31	0
A	47	A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS.	55	44	48	43	63	50	50	64	50	50	38	0
A	48	A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS.	55	40	48	38	63	50	50	64	50	50	31	0
A	49	A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS.	52	40	48	38	58	50	50	57	50	50	31	0
A	50	A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS.	48	40	43	38	53	50	44	50	50	50	31	0
A	51	A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS.	45	36	43	33	47	50	44	50	50	25	31	0
B	52	B1-01 DO YOU MEASURE RESISTANCE.	90	84	87	81	95	100	94	93	50	100	69	100
B	53	B1-02 DO YOU REPAIR OHMMETERS.	7	0	4	0	11	0	6	14	0	0	0	0
B	54	B1-03 DO YOU MEASURE VOLTAGE.	95	80	91	76	100	100	94	100	100	100	62	100
B	55	B1-04 DO YOU REPAIR VOLTMETERS. MULTIMETER USES	7	0	4	0	11	0	6	14	0	0	0	0
B	56	B1-05 DO YOU REPAIR AMMETERS.	5	0	4	0	5	0	6	7	0	0	0	0
B	57	B1-06 DO YOU MEASURE CURRENT.	83	68	83	62	84	100	83	79	100	100	38	100
B	58	B1-07 DO YOU USE MULTIMETERS.	98	76	96	71	100	100	94	100	100	100	54	100
B	59	B1-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED A COULOMB.	6	0	9	0	0	0	11	0	0	0	0	0
B	60	B1-09 DO YOU READ SCHEMATICS.	95	88	96	86	95	100	94	93	100	100	77	100

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK		SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
			ALTERNATING CURRENT												
B	61	B2-01	DO YOU USE OR REFER TO THE TERM EFFECTIVE VOLTAGE (RMS).	83	44	83	43	84	50	83	86	100	75	38	0
B	62	B2-02	DO YOU USE OR REFER TO THE TERM PEAK TO PEAK VOLTAGE.	93	64	91	57	95	100	94	100	100	75	38	100
B	63	B2-03	DO YOU USE OR REFER TO THE TERM AVERAGE VOLTAGE (DC).	74	52	65	52	84	50	67	86	100	75	38	0
B	64	B2-04	DO YOU USE OR REFER TO THE TERM WAVE LENGTH.	83	48	87	48	79	50	89	79	100	75	38	0
B	65	B2-05	DO YOU USE OR REFER TO THE TERM FREQUENCY.	90	64	87	62	95	75	94	100	100	75	38	50
B	66	B2-06	DO YOU USE OR REFER TO THE TERM INSTANTANEOUS VALUE.	50	8	43	5	58	25	44	64	100	25	0	0
B	67	B3-01	DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB.	57	56	61	52	53	75	67	50	50	50	31	50
B	68	B3-02	DO YOU INSPECT INDUCTORS.	50	44	57	38	42	75	61	36	50	50	31	50
B	69	B3-03	DO YOU CLEAN INDUCTORS.	31	16	39	14	21	25	44	29	50	0	15	0
B	70	B3-04	DO YOU ADJUST INDUCTORS.	48	20	52	14	42	50	56	36	50	50	8	0
B	71	B3-05	DO YOU REMOVE OR REPLACE INDUCTORS.	45	52	57	48	32	75	61	21	50	50	38	50
B	72	B3-06	DO YOU USE OR REFER TO INDUCTANCE.	55	40	61	38	47	50	67	43	50	50	38	0
B	73	B3-07	DO YOU USE OR REFER TO HENRIES.	50	32	57	29	42	50	61	36	50	50	31	0
B	74	B3-08	DO YOU USE OR REFER TO INDUCTIVE REACTANCE.	50	36	52	33	47	50	56	43	50	50	38	0
B	75	B3-09	DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS.	2	4	0	0	5	25	0	7	0	0	0	0
B	76	B3-10	DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS.	5	4	4	0	5	25	6	7	0	0	0	0
B	77	B3-11	DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS	7	4	4	5	11	0	6	7	0	25	0	0
B	78	B3-12	DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL.	7	4	4	5	11	0	6	7	0	0	0	0
B	79	B2-13	DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE.	7	0	13	0	0	0	17	0	0	0	0	0
B	80	B2-14	DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH.	7	0	9	0	5	0	11	7	0	0	0	0
B	81	B2-15	DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL.	7	8	9	10	5	0	11	7	0	0	8	0
B	82	B2-16	DO YOU CALCULATE INDUCTANCE FOR PARTICULAR INDUCTORS USING FORMULAS.	12	4	17	5	5	0	22	0	0	0	8	0
B	83	B3-17	DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTANCE IN SERIES.	14	16	17	10	11	50	22	7	0	0	15	0
B	84	B3-18	DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN PARALLEL.	14	16	17	10	11	50	22	7	0	0	15	0
B	85	B3-19	DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES-PARALLEL CIRCUITS.	17	16	17	10	16	50	22	14	0	0	15	0
B	86	B3-20	DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS.	17	28	17	19	16	75	22	14	0	0	15	50
B	87	B3-21	DO YOU CALCULATE INDUCTIVE REACTANCE.	19	24	17	19	21	50	22	21	0	0	23	0
B	88	B3-22	DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY.	17	24	17	19	16	50	22	14	0	0	15	0
B	89	B3-23	DO YOU WORK WITH POWER INDUCTORS.	31	32	35	29	26	50	39	21	50	25	15	0
B	90	B3-24	DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS.	17	8	17	5	16	25	22	7	0	25	8	0
B	91	B3-25	DO YOU WORK WITH RADIO FREQUENCY INDUCTORS.	19	12	22	19	16	0	28	7	0	25	0	0

INDUCTORS AND INDUCTIVE REACTANCE

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS GPSM10 PAGE 5

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		BY-TSK	CAPACITORS AND CAPACITIVE REACTANCE	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
C	92	C1-01	DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB.	83	64	83	57	84	100	83	86	100	75	31	100
C	93	C1-02	DO YOU INSPECT CAPACITORS.	76	64	78	57	74	100	83	71	50	75	38	100
C	94	C1-03	DO YOU CLEAN CAPACITORS.	48	20	43	19	53	25	50	50	50	75	15	0
C	95	C1-04	DO YOU ADJUST CAPACITORS.	43	24	39	19	47	50	33	43	50	50	8	0
C	96	C1-05	DO YOU TEST CAPACITORS.	67	64	70	57	63	100	72	57	50	75	31	100
C	97	C1-06	DO YOU DISCHARGE CAPACITORS.	67	40	74	38	58	50	72	50	100	75	23	0
C	98	C1-07	DO YOU REMOVE OR REPLACE CAPACITORS.	69	64	74	57	63	100	78	57	50	75	38	100
C	99	C1-08	DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE.	21	4	26	5	16	0	33	14	0	25	0	0
C	100	C1-09	DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC.	7	0	9	0	5	0	11	7	0	0	0	0
C	101	C1-10	DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS.	67	60	74	52	58	100	78	57	50	50	38	100
C	102	C1-11	DO YOU USE OR REFER TO CAPACITANCE.	67	60	70	57	63	75	78	64	0	50	38	50
C	103	C1-12	DO YOU USE OR REFER TO DIELECTRIC CONSTANT	10	8	9	5	11	25	11	14	0	0	8	0
C	104	C1-13	DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS	43	48	48	43	37	75	56	29	50	50	31	50
C	105	C1-14	DO YOU USE OR REFER TO CAPACITIVE REACTANCE	43	20	52	14	32	50	56	36	50	0	15	0
C	106	C1-15	DO YOU USE OR REFER TO CAPACITOR COLOR CODES	24	28	35	29	16	25	39	14	50	25	8	0
C	107	C1-16	DO YOU WORK WITH CAPACITORS IN DC CIRCUITS	74	68	70	62	79	100	72	86	50	50	38	100
C	108	C1-17	DO YOU WORK WITH CAPACITORS IN AC CIRCUITS	74	64	70	62	79	75	78	86	0	50	38	50
C	109	C1-18	DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC	74	64	70	62	79	75	72	79	50	75	38	50
C	110	C1-19	DO YOU WORK WITH CAPACITORS IN DON'T REMEMBER WHICH CIRCUITS	36	8	52	10	16	0	50	21	100	0	0	0
C	111	C1-20	DO YOU CALCULATE CAPACITANCE FOR PARTICULAR CAPACITORS USING FORMULAS	19	8	17	0	21	50	22	21	0	0	0	0
C	112	C1-21	DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE DIELECTRIC CONSTANT	10	0	13	0	5	0	17	7	0	0	0	0
C	113	C1-22	DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS	12	4	17	0	5	25	22	7	0	0	0	0
C	114	C1-23	DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES	29	20	30	14	26	50	39	21	0	25	23	0
C	115	C1-24	DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN PARALLEL	29	20	30	14	26	50	39	21	0	25	23	0
C	116	C1-25	DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES-PARALLEL CIRCUITS	29	20	30	14	26	50	39	21	0	25	23	0
C	117	C1-26	DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO	33	16	39	14	26	25	44	29	0	0	8	50
C	118	C1-27	DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS	31	16	35	5	26	75	44	21	0	25	8	50
C	119	C1-28	DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY	21	12	22	5	21	50	28	21	0	0	8	0
C	120	C1-29	DO YOU CALCULATE CAPACITIVE REACTANCE	29	8	26	5	21	25	33	21	0	0	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
C 121	C1-30 DO YOU WORK WITH ROTOR-STATOR (VARIABLE) CAPACITORS	31	16	30	14	32	25	28	21	0	50	15	0
C 122	C1-31 DO YOU WORK WITH COMPRESSION (TRIMMER) CAPACITORS	24	24	22	19	26	50	28	29	0	0	15	0
C 123	C1-32 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS	62	60	65	52	58	100	72	50	0	75	31	100
C 124	C1-33 DO YOU WORK WITH PAPER (FIXED) CAPACITORS	50	60	57	52	42	100	61	29	0	75	31	100
C 125	C1-34 DO YOU WORK WITH MICA (FIXED) CAPACITORS	57	64	61	57	53	100	67	43	0	75	31	100
C 126	C1-35 DO YOU WORK WITH CERAMIC (FIXED) CAPACITORS	57	56	61	48	53	100	61	50	50	50	23	100
C 127	C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF CAPACITORS	38	8	48	10	26	0	50	36	50	0	8	0
C 128	C2-01 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB	64	56	43	52	89	75	56	93	0	75	31	50
C 129	C2-02 DO YOU INSPECT TRANSFORMERS	67	60	52	57	84	75	56	93	50	50	38	50
C 130	C2-03 DO YOU CLEAN TRANSFORMERS	31	32	26	29	37	50	28	36	50	50	15	50
C 131	C2-04 DO YOU ADJUST TRANSFORMERS	24	20	22	19	26	25	22	21	0	25	8	0
C 132	C2-05 DO YOU TROUBLESHOOT TRANSFORMERS	62	52	43	48	84	75	50	86	0	75	38	50
C 133	C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS	62	64	52	62	74	75	56	71	50	75	38	50
C 134	C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING	2	0	4	0	0	0	6	0	0	0	0	0
C 135	C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M)	5	0	0	0	11	0	0	14	0	0	0	0
C 136	C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M	2	0	0	0	5	0	0	7	0	0	0	0
C 137	C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS	7	8	13	10	0	0	17	0	0	0	8	0
C 138	C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS	24	12	30	5	16	50	39	14	0	0	0	50
C 139	C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS	10	0	9	0	11	0	11	7	0	25	0	0
C 140	C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS	5	0	4	0	5	0	6	7	0	0	0	0
C 141	C2-14 DO YOU WORK WITH AUTOTRANSFORMERS	17	16	9	14	26	25	11	29	0	0	15	0
C 142	C2-15 DO YOU WORK WITH POWER TRANSFORMERS	62	64	52	62	74	75	61	71	0	75	38	50
C 143	C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS	19	8	13	5	26	25	17	21	0	25	8	0
C 144	C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS	19	12	22	10	16	25	22	7	0	25	15	50
C 145	C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMERS	21	8	26	10	16	0	28	21	0	0	0	0
C 146	C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE	62	56	57	52	68	75	61	79	50	25	38	50
C 147	C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE	62	52	57	48	68	75	61	79	50	25	31	50
C 148	C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES	57	28	52	19	63	75	56	64	50	50	15	50
C 149	C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO	21	16	26	14	16	25	28	21	50	0	8	0
C 150	C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO	33	24	35	14	32	75	39	43	50	0	8	50
C 151	C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS	64	64	61	62	68	75	67	71	50	50	38	50

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
C 152	C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS	46	52	48	48	42	75	56	50	0	0	38	50
C 153	C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS	56	60	57	57	53	75	61	64	50	0	38	50
C 154	C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS	56	64	52	62	58	75	56	71	50	0	38	50
C 155	C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS	50	40	52	43	47	25	61	57	0	0	31	0
C 156	C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS	48	44	48	43	47	50	56	57	0	0	31	50
C 157	C2-30 DO YOU REFER TO COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS	52	52	52	52	53	50	61	64	50	0	38	50
C 158	C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS	36	32	39	29	32	50	94	36	50	0	23	0
C 159	C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH	29	16	30	14	26	25	39	36	0	0	8	0
C 160	C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO	26	20	26	10	26	75	33	29	0	0	0	50
C 161	C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS	33	28	35	19	32	75	39	36	0	0	15	50
C 162	C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS	21	8	22	5	21	25	28	21	0	0	8	0
C 163	C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS	10	8	9	5	11	25	11	7	0	0	8	0
C 164	C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS	48	44	48	38	47	75	56	50	0	25	38	50
C 165	C2-38 DO YOU INSPECT THREE PHASE TRANSFORMERS	36	40	30	33	42	75	33	50	0	0	23	50
C 166	C2-39 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS	10	4	9	0	11	25	11	14	0	0	0	0
C 167	C2-40 DO YOU ADJUST THREE PHASE TRANSFORMERS	10	8	9	0	11	50	11	14	0	0	0	0
C 168	C2-41 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS	33	32	30	29	37	50	33	36	0	25	23	0
C 169	C2-42 DO YOU REMOVE OR REPLACE COMPLETE THREE PHASE TRANSFORMERS	38	48	35	43	42	75	39	43	0	25	31	50
C 170	C2-43 DO YOU REMOVE OR REPLACE THREE PHASE TRANSFORMER PARTS SUCH AS WINDINGS	2	0	4	0	0	0	6	0	0	0	0	0
C 171	C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS	14	52	13	48	16	75	11	14	50	25	31	50
C 172	C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS MAGNETISM	12	28	13	24	11	50	11	7	50	0	15	0
C 173	C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS	5	8	4	5	5	25	6	7	0	0	0	0
C 174	C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS	10	8	4	5	16	25	6	14	0	25	0	0
C 175	C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS	12	12	9	10	16	25	11	14	0	25	0	0
C 176	C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM	10	8	9	5	11	25	11	14	0	0	8	0
C 177	C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX	14	28	9	24	21	50	11	21	0	0	23	50
C 178	C3-08 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM	2	0	0	0	5	0	0	7	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
C 179	C3-09	DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM	0	0	0	0	0	0	0	0	0	0	0	0
C 180	C3-10	DO YOU USE OR REFER TO MAGNETIC INDUCTION	17	16	9	14	24	25	11	21	0	25	15	0
C 181	C3-11	DO YOU USE OR REFER TO FLUX DENSITY	14	8	9	5	21	25	11	21	0	0	8	0
C 182	C3-12	DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT	33	36	26	29	42	75	22	50	50	0	23	50
C 183	C3-13	DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES	14	20	9	19	21	25	11	21	0	0	15	0
C 184	C3-14	DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE NORTH POLE OF A CURRENT CARRYING COIL	14	16	9	14	21	25	11	21	0	0	8	0
D 185	D1-01	DO YOU WORK WITH RC, LR, RCL CIRCUITS IN YOUR PRESENT JOB	40	28	39	29	42	25	44	36	0	50	8	50
		RCL CIRCUITS												
D 186	D1-02	DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS	10	12	4	10	16	25	0	14	50	0	15	0
D 187	D1-03	DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS	12	8	9	5	16	25	11	14	0	0	8	0
D 188	D1-04	DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS	36	0	39	0	32	0	39	29	50	25	0	0
D 189	D1-05	DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS	36	0	39	0	32	0	39	29	50	25	0	0
D 190	D1-06	DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS	31	4	35	0	26	25	33	21	50	25	0	0
D 191	D1-07	DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS	36	16	43	19	26	0	50	21	0	25	15	0
D 192	D1-08	DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING WITH RCL CIRCUITS	17	8	22	10	11	0	28	14	0	0	8	0
D 193	D1-09	DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN WORKING WITH RCL CIRCUITS	26	8	35	10	16	0	39	21	0	0	8	0
D 194	D1-10	DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN WORKING WITH RCL CIRCUITS	26	12	35	14	16	0	39	14	0	25	8	0
D 195	D1-11	DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN WORKING WITH RCL CIRCUITS	10	8	13	10	5	0	17	7	0	0	8	0
D 196	D1-12	DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS	12	4	22	5	0	0	22	0	0	0	0	0
D 197	D1-13	DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS	29	16	30	14	26	25	39	21	0	25	8	50
D 198	D1-14	DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS	33	12	39	14	26	0	39	21	50	25	8	0
D 199	D1-15	DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS	31	8	43	10	16	0	44	7	50	25	8	0
D 200	D1-16	DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS	33	8	39	10	26	0	39	21	50	25	0	0
D 201	D1-17	DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS	19	0	13	0	26	0	17	21	0	25	0	0
D 202	D1-18	DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS	31	8	35	10	26	0	39	21	0	25	8	0
D 203	D1-19	DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS	14	0	13	0	1	0	17	7	0	25	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
D 204	D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS	33	20	35	19	32	25	39	21	0	50	15	50
D 205	D1-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS	17	0	13	0	21	0	17	21	0	0	0	0
D 206	D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS	7	4	4	5	11	0	6	14	0	0	8	0
D 207	D1-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS	17	4	17	5	16	0	22	7	0	25	8	0
D 208	D1-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS	5	0	4	0	5	0	6	7	0	0	0	0
D 209	D1-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS	14	4	17	5	11	0	22	7	0	0	8	0
D 210	D1-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS	10	0	9	0	11	0	11	7	0	0	0	0
D 211	D1-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS	5	0	4	0	5	0	6	7	0	0	0	0
D 212	D1-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS	10	0	13	0	5	0	17	7	0	0	0	0
D 213	D1-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS	7	0	9	0	5	0	11	7	0	0	0	0
D 214	D1-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS	10	4	9	5	11	0	11	7	0	0	8	0
D 215	D1-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS	7	0	9	0	5	0	11	7	0	0	0	0
D 216	D1-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD	7	0	9	0	5	0	11	7	0	0	0	0
D 217	D1-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW	7	8	4	10	11	0	6	14	0	0	15	0
D 218	D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS	45	28	43	29	47	25	44	43	50	50	0	50
D 219	D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION	33	8	30	5	37	25	33	29	50	50	8	50
D 220	D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS	38	20	35	24	42	0	33	43	50	25	0	0
D 221	D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION	33	8	26	5	42	25	33	36	0	50	8	50
D 222	D1-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT THETA= 0, PF = 1, AND PA = PT FOR RESONANT CIRCUITS	5	0	9	0	0	0	11	0	0	0	0	0
D 223	D1-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS	5	0	4	0	5	0	6	0	0	0	0	0
D 224	D1-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS	14	4	17	5	11	0	17	7	50	0	0	0
D 225	D1-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS	12	4	13	0	11	25	11	7	50	0	0	50
D 226	D1-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK CURRENT VALUE	26	0	26	0	26	0	22	21	50	25	0	0
D 227	D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO Q	12	0	9	0	16	0	6	7	50	25	0	0
D 228	D1-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS	12	8	13	5	11	25	17	7	0	0	8	50

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
D 229	D2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO SERIES OR PARALLEL RESONANT CIRCUITS OR TIME CONSTANTS		24	28	26	19	21	75	33	14	0	25	8	50
D 230	D2-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS		21	28	26	19	16	75	33	14	0	0	8	50
D 231	D2-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE		12	20	17	10	5	75	22	0	0	25	0	50
D 232	D3-04 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT INTERVALS		12	4	17	5	5	0	22	7	0	0	0	0
D 233	D2-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC)		14	12	17	5	11	50	22	7	0	0	0	50
D 234	D2-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS		7	0	9	0	5	0	11	0	0	0	0	0
D 235	D2-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS		7	4	13	0	0	25	17	0	0	0	0	0
D 236	D2-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS		7	4	13	0	0	25	17	0	0	0	0	0
D 237	D2-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES		7	4	13	0	0	25	17	0	0	0	0	0
D 238	D2-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS		12	4	13	0	11	25	17	7	0	0	0	0
D 239	D3-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB		55	56	52	48	58	100	67	57	0	50	23	100
D 240	D3-02 DO YOU INSPECT FILTER CIRCUITS	FILTERS	45	52	48	43	42	100	61	43	0	25	23	100
D 241	D3-03 DO YOU CLEAN FILTER CIRCUITS		26	24	26	24	26	25	33	29	0	25	8	0
D 242	D3-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS		29	24	30	10	26	100	39	29	0	25	8	100
D 243	D3-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL		48	48	52	43	42	75	61	43	0	25	31	50
D 244	D3-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS		36	44	39	33	32	100	44	29	0	25	31	100
D 245	D3-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT		48	60	57	52	37	100	67	36	0	25	31	100
D 246	D3-08 DO YOU REMOVE OR REPLACE FILTER CIRCUIT COMPONENT PARTS		31	52	35	43	26	100	44	21	0	25	31	100
D 247	D3-09 DO YOU WORK WITH LOW PASS FILTERS		43	28	52	14	32	100	61	29	0	25	8	100
D 248	D3-10 DO YOU WORK WITH HIGH PASS FILTERS		43	24	52	14	32	75	61	29	0	25	8	50
D 249	D3-11 DO YOU WORK WITH BANDPASS FILTERS		33	20	48	14	16	50	56	7	0	25	8	50
D 250	D3-12 DO YOU WORK WITH BAND-REJECT FILTERS		24	16	30	14	16	25	39	7	0	25	8	0
D 251	D3-13 DON'T REMEMBER WHICH TYPE OF FILTER YOU WORK WITH		21	28	26	29	16	25	28	14	0	25	23	50
D 252	D3-14 DO YOU WORK WITH L-SECTION FILTER CONFIGURATION		14	20	9	14	21	50	11	21	0	0	0	0
D 253	D3-15 DO YOU WORK WITH T-SECTION FILTER CONFIGURATION		10	24	4	19	16	50	6	14	0	0	0	0
D 254	D3-16 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATION		7	8	4	5	11	25	6	7	0	0	0	0
D 255	D3-17 DON'T REMEMBER WHICH TYPE FILTER CONFIGURATION		33	32	39	29	26	50	50	21	0	50	23	100
D 256	D3-18 DO THE FILTERS YOU WORK WITH USE PARALLEL RESONANT CIRCUITS		29	28	26	19	32	75	33	21	0	50	8	50
D 257	D3-19 DO THE FILTERS YOU WORK WITH USE SERIES-PARALLEL CIRCUITS		31	32	30	29	32	50	39	21	0	50	8	0
D 258	D3-20 DO THE FILTERS YOU WORK WITH USE SERIES RESONANT CIRCUITS		29	28	26	19	32	75	33	21	0	50	8	50

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
D 259	D3-21 DON'T REMEMBER WHICH TYPE OF BASIC CIRCUIT	29	28	30	29	26	25	39	29	0	0	23	50
D 260	D3-22 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS	10	4	13	0	5	25	17	0	0	25	0	0
E 261	E1-01 DO YOU WORK WITH COUPLING DEVICES IN YOUR PRESENT JOB	46	48	43	43	47	75	50	50	0	25	31	50
E 262	E1-02 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC COUPLING	33	40	26	33	42	75	28	43	0	25	31	50
	COUPLING												
E 263	E1-03 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING	33	32	30	24	37	75	33	36	0	25	31	50
E 264	E1-04 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING	36	32	35	24	37	75	39	36	0	25	23	50
E 265	E1-05 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING	36	48	26	43	47	75	28	50	0	25	31	50
E 266	E1-06 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING	36	40	30	33	42	75	33	43	0	25	31	50
E 267	E1-07 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING	43	36	43	33	42	50	50	43	0	25	23	0
E 268	E1-08 DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS	36	40	30	33	42	75	33	43	0	25	23	50
E 269	E1-09 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS	31	48	30	43	32	75	33	36	0	0	31	50
E 270	E1-10 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS	24	48	26	43	21	75	28	21	0	0	31	50
E 271	E1-11 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS	38	28	43	19	32	75	50	36	0	0	23	50
E 272	E1-12 DON'T REMEMBER WHICH TYPE OF COUPLING CIRCUITS	17	8	17	5	16	25	17	14	0	25	0	0
E 273	E2-01 IN YOUR PRESENT JOB, DO YOU PERFORM SOLDERING TECHNIQUES OR INSPECT OR EVALUATE SOLDERED CONNECTIONS	93	76	96	71	89	100	94	93	100	75	54	100
	SOLDERING												
E 274	E2-02 DO YOU SELECT TYPE OF SOLDER TO USE	79	56	87	52	68	75	94	71	50	50	31	50
E 275	E2-03 DO YOU ADD FLUX TO CONNECTIONS	93	60	96	52	89	100	94	93	100	75	38	100
E 276	E2-04 DO YOU CLEAN CONNECTIONS USING SOLVENTS	95	56	96	57	95	50	94	100	100	75	38	0
E 277	E2-05 DO YOU STRIP INSULATION FROM WIRES	95	72	96	67	95	100	94	100	100	75	46	100
E 278	E2-06 DO YOU CONNECT OR DISCONNECT HEAT SINKS	83	72	78	67	89	100	78	93	50	75	46	100
E 279	E2-07 DO YOU BEND OR SHAPE WIRES OR LEADS	95	72	96	67	95	100	94	100	100	75	46	100
E 280	E2-08 DO YOU CUT WIRES	95	72	96	67	95	100	94	100	100	75	46	100
E 281	E2-09 DO YOU FILE OR SHAPE SOLDERING IRON TIPS	81	60	74	52	89	100	72	93	100	75	38	100
E 282	E2-10 DO YOU TIN SOLDERING IRON TIPS	95	72	96	67	95	100	94	100	100	75	46	100
E 283	E2-11 DO YOU CLEAN SOLDERING IRON TIPS	93	72	91	67	95	100	89	100	100	75	46	100
E 284	E2-12 DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS	79	56	65	57	95	50	67	100	50	75	38	0
E 285	E2-13 DO YOU TIN OR PRE-TIN CONDUCTORS	93	68	91	62	95	100	89	100	100	75	38	100
E 286	E2-14 DO YOU INSPECT SOLDERED CONNECTIONS	95	72	96	67	95	100	94	100	100	75	46	100
E 287	E2-15 DO YOU DESOLDER CONNECTIONS BY WICKING	74	60	70	52	79	100	72	79	100	75	23	100
E 288	E2-16 DO YOU DESOLDER CONNECTIONS USING VACUUM DESOLDERING TOOLS	86	68	87	62	84	100	89	86	100	75	38	100
E 289	E2-17 DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS	67	52	48	48	89	75	50	93	100	75	23	50
E 290	E2-18 DO YOU CRUSH COMPONENTS FOR REMOVAL	19	32	13	29	26	50	17	29	0	25	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
E 291	E2-19 DO YOU MAKE HARDWIRE CONNECTIONS	86	64	91	57	79	100	94	79	50	75	38	100
E 292	E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS	79	64	78	57	79	100	83	79	50	75	38	100
E 293	E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS ON PRINTED CIRCUIT BOARDS	71	64	74	57	68	100	78	64	50	75	38	100
E 294	E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS	64	64	70	57	68	100	72	64	50	75	38	100
E 295	E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB	71	72	65	67	79	100	78	86	0	50	46	100
E 296	E3-02 DO YOU ADJUST RELAYS	33	20	35	10	32	75	44	29	0	50	0	50
E 297	E3-03 DO YOU CLEAN RELAYS	43	36	43	33	42	50	50	36	50	50	15	50
E 298	E3-04 DO YOU INSPECT RELAYS	71	48	74	43	68	75	83	71	50	50	31	50
E 299	E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS	62	64	70	57	53	100	78	50	0	50	38	100
E 300	E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS	17	20	13	14	21	50	17	14	0	50	0	50
E 301	E3-07 DO YOU TROUBLESHOOT RELAYS	71	64	70	62	74	75	72	79	50	50	46	50
E 302	E3-08 DO YOU STRAIGHTEN RELAY CONTACTS	40	16	43	10	37	50	50	29	0	50	0	50
E 303	E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS	31	24	30	24	32	25	39	29	0	50	8	0
E 304	E3-10 DO YOU PERFORM TASKS ON RELAY CORES	5	4	9	5	2	0	11	0	0	0	0	0
E 305	E3-11 DO YOU PERFORM TASKS ON RELAY COILS	5	4	9	5	0	0	11	0	0	0	0	0
E 306	E3-12 DO YOU PERFORM TASKS ON RELAY ARMATURES	10	4	13	5	5	0	17	0	0	25	0	0
E 307	E3-13 DO YOU PERFORM TASKS ON RELAY SPRINGS	17	8	22	10	11	0	28	7	0	25	0	0
E 308	E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPER (NO) SCHEMATIC SYMBOLS FOR RELAYS	79	64	78	57	79	100	83	86	50	50	38	100
E 309	E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS	79	64	78	57	79	100	83	86	50	50	38	100
E 310	E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS	79	56	78	48	79	100	83	86	50	50	31	100
E 311	E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS	79	56	78	48	79	100	83	86	50	50	31	100
E 312	E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC SYMBOLS FOR RELAYS	74	52	70	43	79	100	78	86	0	50	23	100
E 313	E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE	62	60	57	52	68	100	56	71	50	50	31	100
F 314	F1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES	2	4	4	5	0	0	6	0	0	0	8	0
F 315	F1-02 DO YOU INSPECT MICROPHONES	2	4	4	5	0	0	6	0	0	0	8	0
F 316	F1-03 DO YOU CLEAN MICROPHONES	2	4	4	5	0	0	6	0	0	0	8	0
F 317	F1-04 DO YOU OPERATE MICROPHONES	2	4	4	5	0	0	6	0	0	0	8	0
F 318	F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT PARTS OR MICROPHONES	2	4	4	5	0	0	6	0	0	0	8	0
F 319	F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS	0	0	0	0	0	0	0	0	0	0	0	0
F 320	F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES	2	4	4	5	0	0	6	0	0	0	8	0
F 321	F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS	0	0	0	0	0	0	0	0	0	0	0	0
F 322	F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES	0	0	0	0	0	0	0	0	0	0	0	0
F 323	F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES	0	0	0	0	0	0	0	0	0	0	0	0
F 324	F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES	0	0	0	0	0	0	0	0	0	0	0	0
F 325	F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES	2	0	4	0	0	0	6	0	0	0	0	0
F 326	F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES	0	0	0	0	0	0	0	0	0	0	0	0

RELAYS

MICROPHONES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
		SPEAKERS												
F	327	F2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS	2	4	4	5	0	0	6	0	0	0	8	0
F	328	F2-02 DO YOU INSPECT SPEAKERS	2	4	4	5	0	0	6	0	0	0	8	0
F	329	F2-03 DO YOU CLEAN SPEAKERS	2	4	4	5	0	0	6	0	0	0	8	0
F	330	F2-04 DO YOU OPERATE SPEAKERS	2	4	4	5	0	0	6	0	0	0	8	0
F	331	F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT PARTS OF SPEAKERS	2	0	4	0	0	0	6	0	0	0	0	0
F	332	F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS	0	0	0	0	0	0	0	0	0	0	0	0
F	333	F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS	2	0	4	0	0	0	6	0	0	0	0	0
F	334	F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS	0	0	0	0	0	0	0	0	0	0	0	0
F	335	F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES	0	0	0	0	0	0	0	0	0	0	0	0
F	336	F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS	0	0	0	0	0	0	0	0	0	0	0	0
F	337	F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS	0	0	0	0	0	0	0	0	0	0	0	0
F	338	F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS	0	0	0	0	0	0	0	0	0	0	0	0
F	339	F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS	0	4	0	5	0	0	0	0	0	0	8	0
F	340	F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS	0	0	0	0	0	0	0	0	0	0	0	0
F	341	F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CORES	0	0	0	0	0	0	0	0	0	0	0	0
		OSCILLOSCOPES												
F	342	F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB	93	68	91	62	95	100	94	100	100	75	38	100
F	343	F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL CHECKS	90	64	83	57	100	100	89	100	100	100	38	100
F	344	F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR ADJUSTMENTS	88	60	78	52	100	100	83	100	100	100	31	100
F	345	F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC CIRCUITS	83	60	74	52	95	100	78	100	100	75	38	100
F	346	F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY	90	56	87	52	95	75	89	93	100	100	31	50
F	347	F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME	90	60	87	52	95	100	89	100	100	75	31	100
F	348	F3-07 DO YOU USE OSCILLOSCOPES TO OBSERVE LISAJOUS PATTERNS	29	16	35	19	21	25	94	14	0	50	15	0
F	349	F3-08 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES	86	60	83	52	89	100	83	86	100	100	31	100
F	350	F3-09 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS	79	44	74	43	84	50	72	86	100	75	23	50
F	351	F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE	86	56	74	48	100	100	78	100	100	100	15	100
F	352	F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS	79	32	74	24	84	75	83	86	50	75	8	50
F	353	F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE	90	52	83	48	100	75	89	100	100	100	23	50
		SEMICONDUCTOR DIODES												
G	354	G1-01 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB	74	64	74	62	74	75	72	64	100	100	38	50
G	355	G1-02 DO YOU INSPECT DIODES	64	56	65	57	63	50	72	50	50	100	38	0
G	356	G1-03 DO YOU REMOVE OR REPLACE DIODES	71	64	74	62	68	75	78	57	50	100	38	50
G	357	G1-04 DO YOU CHECK DIODES USING AN INSTRUMENT	67	64	65	62	68	75	78	57	0	100	38	50
G	358	G1-05 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES	14	0	17	0	11	0	22	7	0	0	0	0
G	359	G1-06 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE	14	0	13	0	16	0	17	7	0	25	0	0
G	360	G1-07 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES	21	12	13	10	32	25	17	29	0	25	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
G 361	G1-08	DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES	45	44	52	43	37	50	61	36	0	25	23	50
G 362	G1-09	DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE	67	56	65	52	68	75	67	64	50	75	31	50
G 363	G1-10	DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW	17	4	13	5	21	0	17	14	0	25	8	0
G 364	G1-11	DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS RESISTANCE	52	32	61	33	42	25	78	43	0	25	15	0
G 365	G1-12	DO YOU USE OR REFER TO DIODE COLOR CODING	36	32	48	33	21	25	56	21	50	25	23	0
G 366	G1-13	DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS	10	0	9	0	11	0	11	7	0	0	0	0
G 367	G1-14	DO YOU USE OR REFER TO CENTRIPETAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS	10	0	9	0	11	0	11	7	0	0	0	0
G 368	G1-15	DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH AS IN 538	52	56	61	52	42	75	67	36	50	50	38	50
G 369	G1-16	DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON MOVING IN ORBIT	7	0	9	0	5	0	11	7	0	0	0	0
G 370	G1-17	DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN ELECTRON MOVING IN ORBIT	7	0	4	0	11	0	6	14	0	0	0	0
G 371	G1-18	DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS RESISTANCE	48	32	48	33	47	25	61	50	0	25	15	0
G 372	G1-19	DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A PARTICULAR SHELL OR ORBIT	7	0	4	0	11	0	6	7	0	0	0	0
G 373	G1-20	DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF AN ORBITING ELECTRON	10	0	9	0	11	0	11	7	0	0	0	0
G 374	G1-21	DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN ORBITING ELECTRON	7	0	4	0	11	0	6	7	0	0	0	0
G 375	G1-22	DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL)	10	0	9	0	11	0	11	7	0	0	0	0
G 376	G1-23	DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF ELECTRONS IN ATOM)	10	0	9	0	11	0	11	7	0	0	0	0
G 377	G1-24	DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END	62	52	65	48	58	75	72	50	50	75	31	50
G 378	G1-25	DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON	31	12	39	10	21	25	44	7	0	50	0	0
G 379	G1-26	DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)	43	28	43	24	42	50	50	36	50	50	15	0
G 380	G1-27	DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT CHARACTERISTIC CURVES (PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS)	17	16	22	10	11	50	22	0	0	25	0	0
G 381	G1-28	DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS	60	44	70	38	47	75	72	43	50	50	15	50
G 382	G1-29	DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR MATERIALS	12	0	9	0	5	0	11	14	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
G 383	G1-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS	12	0	9	0	16	0	11	14	0	0	0	0
G 384	G1-31 DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS	14	0	13	0	16	0	17	14	0	0	0	0
G 385	G1-32 DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS	12	0	9	0	16	0	11	14	0	0	0	0
G 386	G1-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS	14	0	13	0	16	0	17	14	0	0	0	0
G 387	G1-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS	29	4	30	5	16	0	33	14	0	0	8	0
G 388	G1-35 DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS	12	4	9	5	16	0	11	14	0	0	8	0
G 389	G1-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS	12	4	9	5	16	0	11	14	0	0	8	0
G 390	G1-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL	33	20	43	19	21	25	50	14	0	25	15	50
G 391	G1-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL	33	16	43	14	21	25	50	14	0	25	15	50
G 392	G1-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS	14	4	13	5	16	0	17	14	0	0	8	0
G 393	G1-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS	14	4	13	5	16	0	17	14	0	0	8	0
G 394	G1-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS	14	0	17	0	11	0	17	7	0	0	0	0
G 395	G1-42 DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS	17	4	17	5	16	0	17	14	0	0	8	0
G 396	G1-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL	12	4	13	0	11	25	17	7	0	0	0	50
G 397	G1-44 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES	31	16	30	14	32	25	28	29	0	25	0	0
G 398	G1-45 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS	7	4	9	0	5	25	11	7	0	0	0	0
G 399	G1-46 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION	33	24	39	19	26	50	50	14	0	50	8	0
G 400	G1-47 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS	24	16	22	10	26	50	28	21	0	25	8	0
G 401	G1-48 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS	24	12	22	5	26	50	28	21	0	25	0	0
G 402	G1-49 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS	24	8	22	0	26	50	28	21	0	25	0	0
G 403	G1-50 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS	24	8	22	0	26	50	28	21	0	25	0	0
G 404	G2-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB.	69	60	65	52	74	100	72	71	50	75	31	100
G 405	G2-02 DO YOU INSPECT TRANSISTORS	71	56	70	52	74	75	78	71	50	75	31	50
G 406	G2-03 DO YOU REMOVE OR REPLACE TRANSISTORS	64	68	70	62	58	100	78	50	50	75	38	100
G 407	G2-04 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT	64	68	61	62	68	100	67	64	50	75	38	100
G 408	G2-05 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	67	72	65	67	68	100	78	64	0	75	44	100
G 409	G2-06 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	69	68	65	62	74	100	78	64	0	100	38	100

TRANSISTORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
G 410	G2-07 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS	69	64	65	62	74	75	78	64	0	100	38	100
G 411	G2-08 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION	38	24	48	24	26	25	56	21	0	25	23	0
G 412	G2-09 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION	36	29	43	24	26	25	50	21	0	25	23	0
G 413	G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)	48	40	52	43	42	25	56	29	50	75	31	0
G 414	G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A TRANSISTOR	26	8	30	10	21	0	39	21	0	25	8	0
G 415	G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS	74	64	74	62	74	75	83	64	50	100	38	50
G 416	G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS Q1, Q2, Q3, ETC	76	68	74	62	79	100	83	71	50	100	38	100
G 417	G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION	45	32	48	29	42	50	61	29	0	75	23	0
G 418	G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT IB IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT IE (USUALLY IB BEING 2 TO 8 PERCENT OF IE)	31	20	39	14	21	50	44	14	0	25	0	0
G 419	G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS	48	32	48	29	47	50	50	43	50	50	15	0
G 420	G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES	24	24	22	19	26	50	28	29	0	25	8	0
G 421	G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES	17	12	22	5	11	50	28	0	0	25	8	0
G 422	G2-19 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS	21	8	13	5	32	25	17	29	0	25	8	0
G 423	G2-20 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS	21	4	13	0	32	25	17	29	0	25	0	0
G 424	G2-21 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS	19	4	13	0	26	25	17	21	0	25	0	0
G 425	G2-22 DO YOU CALCULATE BETA TRANSISTOR GAINS	12	4	13	0	11	25	17	7	0	0	0	0
G 426	G2-23 DO YOU CALCULATE ALPHA TRANSISTOR GAINS	12	4	13	0	11	25	17	7	0	0	0	0
G 427	G2-24 DO YOU CALCULATE GAMMA TRANSISTOR GAINS	12	4	13	0	11	25	17	7	0	0	0	0
G 428	G3-01 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB	50	48	43	43	58	75	50	57	0	50	23	50
	TRANSISTOR AMPLIFIERS												
G 429	G3-02 DO YOU INSPECT TRANSISTOR AMPLIFIERS	50	40	48	38	53	50	56	50	0	50	23	0
G 430	G3-03 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS	38	28	26	19	53	75	28	50	0	50	8	50
G 431	G3-04 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL	55	48	48	43	63	75	56	64	0	50	23	50
G 432	G3-05 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS	45	32	39	24	53	75	44	50	0	50	23	50
G 433	G3-06 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER	50	44	48	43	53	50	56	50	0	50	23	0
G 434	G3-07 DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS	38	36	35	29	42	75	39	36	0	50	23	50
G 435	G3-08 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE CURRENT	31	16	35	10	26	50	39	21	0	25	8	0
G 436	G3-09 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM A SPECIFIC CHANGE IN BASE CURRENT	14	12	17	5	11	50	17	7	0	0	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
G 437	G3-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE CURRENT	26	20	30	10	21	75	33	14	0	25	8	50
G 438	G3-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A SPECIFIC CHANGE IN BASE CURRENT	19	8	22	0	16	50	22	14	0	0	0	0
G 439	G3-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL	29	20	39	10	16	75	44	14	0	0	8	50
G 440	G3-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL	17	12	22	5	11	50	28	7	0	0	8	0
G 441	G3-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)	5	8	4	5	5	25	6	0	0	0	8	0
G 442	G3-15 DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR	19	12	17	10	21	25	22	14	0	25	8	50
G 443	G3-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A PARTICULAR TRANSISTOR	10	0	9	0	11	0	11	0	0	25	0	0
G 444	G3-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON EMITTER CONFIGURATION	36	40	39	33	32	75	44	29	0	25	8	50
G 445	G3-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON EMITTER CONFIGURATION	26	28	26	19	26	75	33	29	0	25	8	50
G 446	G3-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON EMITTER CONFIGURATION	26	24	30	14	21	75	39	21	0	25	8	50
G 447	G3-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE IN BASE-EMITTER VOLTAGE INTO THE CHANGE THE BASE COLLECTOR VOLTAGE TO DETERMINE THE VOLTAGE GAIN	12	0	9	0	16	0	11	14	0	0	0	0
G 448	G3-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT TO DETERMINE THE CURRENT GAIN	10	0	9	0	11	0	11	7	0	0	0	0
G 449	G3-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE CURRENT GAIN TIMES THE VOLTAGE GAIN TO DETERMINE THE POWER GAIN	7	0	9	0	5	0	11	0	0	0	0	0
G 450	G3-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE INCREASES (THIS AFFECTS THE STATIC OPERATING POINT EQ] OF THE TRANSISTOR)	19	4	17	0	21	25	22	21	0	0	0	0
G 451	G3-24 DO YOU COMPUTE THE STATIC OPERATING POINT EQ] OF A TRANSISTOR AT DIFFERENT TEMPERATURES	5	4	9	0	0	25	11	0	0	0	0	0
G 452	G3-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION	33	16	35	14	32	25	39	29	0	25	15	0
G 453	G3-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION	29	12	26	10	32	25	28	29	0	25	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
G 454	G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION	31	12	30	10	32	25	33	29	0	25	8	50
G 455	G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION	31	16	35	14	26	25	39	21	0	25	15	0
G 456	G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION	31	16	35	14	26	25	39	21	0	25	15	0
G 457	G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION	26	12	26	10	26	25	28	21	0	25	8	0
G 458	G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION	31	20	26	19	37	25	33	36	0	25	15	0
G 459	G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION	29	16	26	14	32	25	28	29	0	25	8	0
G 460	G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION	33	12	30	14	37	0	33	36	0	25	8	0
G 461	G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION	31	20	35	19	26	25	39	21	0	25	15	0
G 462	G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION	31	20	35	19	26	25	39	21	0	25	15	0
G 463	G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION	24	16	17	14	32	25	17	29	0	25	8	0
G 464	G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS	33	20	30	14	37	50	33	43	0	0	15	0
G 465	G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION	40	20	43	14	37	50	50	36	0	25	15	0
G 466	G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS	33	20	39	14	26	50	44	21	0	25	15	0
G 467	G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS	31	16	35	14	26	25	39	21	0	25	15	0
G 468	G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION	29	12	35	10	21	25	39	14	0	25	15	0
G 469	G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF FREQUENCY DISTORTION	31	16	39	10	21	50	44	14	0	25	15	0
G 470	G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS IN THE COMMON COLLECTOR CONFIGURATION	21	8	17	0	26	50	17	29	0	0	0	0
G 471	G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	24	12	30	5	16	50	33	14	0	0	8	0
G 472	G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	12	12	13	10	11	25	17	7	0	0	8	0
G 473	G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	33	44	35	43	32	50	39	29	0	25	23	50
G 474	G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS	24	16	26	14	21	25	28	14	0	25	8	0
G 475	G3-48 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	26	12	26	10	26	25	28	21	0	25	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

			DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
G	476	G3-49	DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	24	12	22	5	24	50	22	29	0	0	0	50
			SOLID-STATE SPECIAL PURPOSE DEVICES												
H	477	H1-01	DO YOU USE OR REFER TO VARACTORS	14	8	13	10	16	0	11	14	0	0	8	0
H	478	H1-02	DO YOU USE OR REFER TO TUNNEL DIODES	21	20	22	24	21	0	22	14	0	25	15	0
H	479	H1-03	DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)	50	44	52	43	47	50	61	43	0	50	23	0
H	480	H1-04	DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS	48	52	57	48	37	75	67	36	0	25	31	50
H	481	H1-05	DO YOU USE OR REFER TO ZENER DIODES	76	60	78	57	74	75	89	71	50	75	38	50
H	482	H1-06	DO YOU USE OR REFER TO INTEGRATED CIRCUITS	74	60	78	57	68	75	89	71	50	50	38	50
H	483	H2-01	IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES	74	64	83	57	63	100	83	57	100	75	31	100
H	484	H2-02	DO YOU INSPECT POWER SUPPLIES	71	64	74	62	68	75	72	71	100	50	38	50
H	485	H2-03	DO YOU CLEAN POWER SUPPLIES	50	44	52	43	47	50	56	50	50	50	23	0
			POWER SUPPLIES												
H	486	H2-04	DO YOU ALIGN OR ADJUST POWER SUPPLIES	74	48	78	38	68	100	78	71	100	50	23	100
H	487	H2-05	DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL	62	64	57	57	68	100	61	71	0	50	38	100
H	488	H2-06	DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS	56	56	48	48	63	100	56	64	0	50	38	100
H	489	H2-07	DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES	71	68	74	62	68	100	78	64	50	75	38	100
H	490	H2-08	DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS	60	60	48	52	53	100	56	50	0	50	38	100
H	491	H2-09	DO YOU WORK WITH HALF-WAVE RECTIFIERS	52	40	57	33	47	75	67	43	0	50	31	50
H	492	H2-10	DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS	57	48	57	43	58	75	67	57	0	50	38	50
H	493	H2-11	DO YOU WORK WITH BRIDGE RECTIFIERS	62	60	61	57	63	75	72	64	0	50	38	50
H	494	H2-12	DO YOU WORK WITH THREE-PHASE RECTIFIERS	46	44	39	38	53	75	94	43	0	75	23	50
H	495	H2-13	DO YOU USE OR REFER TO INPUT VOLTAGE	62	56	65	52	58	75	78	57	0	50	38	50
H	496	H2-14	DO YOU USE OR REFER TO INPUT FREQUENCY	50	48	52	48	47	50	67	50	0	50	31	0
H	497	H2-15	DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE	60	48	65	48	53	50	78	50	0	50	38	0
H	498	H2-16	DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE	57	60	61	57	53	75	72	57	0	25	38	50
H	499	H2-17	DO YOU USE OR REFER TO RIPPLE AMPLITUDE	48	36	48	29	47	75	56	43	0	50	31	50
H	500	H2-18	DO YOU USE OR REFER TO RIPPLE FREQUENCY	43	28	39	24	47	50	50	43	0	50	23	0
H	501	H2-19	DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE	40	24	43	19	37	50	56	36	0	50	15	0
H	502	H2-20	DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS	62	52	65	48	58	75	78	57	0	50	38	50
H	503	H2-21	DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE	60	48	61	43	58	75	67	57	50	50	38	50
H	504	H2-22	DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS	45	56	48	52	42	75	50	50	0	0	38	50
H	505	H2-23	DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS	45	52	48	48	42	75	50	50	0	0	31	50
H	506	H2-24	DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS	33	44	39	38	26	75	94	29	0	0	31	50
H	507	H2-25	DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS	29	36	35	29	21	75	39	21	0	0	23	50
H	508	H2-26	DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS	24	28	30	29	16	25	33	14	0	0	15	0
H	509	H2-27	DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS	29	32	30	33	26	25	33	29	0	0	23	0
H	510	H2-28	DO YOU WORK WITH CIRCUITS WHICH EMPLOY DON'T REMEMBER WHICH TYPE OF FILTER	40	16	48	19	32	0	50	29	0	50	8	0
H	511	H2-29	DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER	7	8	13	5	0	25	17	0	0	0	0	0
H	512	H3-01	DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB	40	28	43	19	37	75	50	36	0	25	15	50

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

OSCILLATORS

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
H 513	H3-02 DO YOU INSPECT OSCILLATORS	36	20	35	14	37	50	39	36	0	25	15	0
H 514	H3-03 DO YOU ALIGN OR ADJUST OSCILLATORS	33	24	35	14	32	75	39	29	0	25	8	50
H 515	H3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS	43	24	43	19	42	50	50	43	0	25	15	0
H 516	H3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS	29	24	13	14	37	75	17	36	0	25	15	50
H 517	H3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL	40	24	39	19	42	50	44	43	0	25	15	0
H 518	H3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS	21	24	13	14	32	75	17	29	0	25	15	50
H 519	H3-08 DO YOU USE OR REFER TO FEEDBACK	43	28	43	19	42	75	50	43	0	25	15	50
H 520	H3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)	29	28	22	19	37	75	28	36	0	25	15	50
H 521	H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY	40	16	39	10	42	50	39	43	50	25	15	0
H 522	H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY	45	16	48	10	42	50	50	43	50	25	15	0
H 523	H3-12 DO YOU USE OR REFER TO DAMPING	31	20	26	14	37	50	28	36	0	25	15	0
H 524	H3-13 DO YOU USE OR REFER TO REGENERATIVE FEEDBACK	38	28	35	19	42	75	39	43	0	25	15	50
H 525	H3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT	14	20	9	14	21	50	11	21	0	0	15	0
H 526	H3-15 DO YOU USE OR REFER TO CRITICAL DAMPING	17	12	17	5	16	50	22	14	0	25	8	0
H 527	H3-16 DO YOU USE OR REFER TO UNDER DAMPING	19	16	17	10	21	50	22	21	0	25	8	0
H 528	H3-17 DO YOU USE OR REFER TO OVER DAMPING	17	16	17	10	16	50	22	14	0	25	8	0
H 529	H3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK CIRCUITS AS FDD	24	28	26	19	21	75	28	14	0	25	15	50
H 530	H3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS FDD	31	24	35	14	26	75	39	21	0	25	15	50
H 531	H3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS FDD	36	4	39	0	32	25	44	29	0	25	0	0
H 532	H3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DON'T REMEMBER WHICH TYPE OF FDD	12	8	22	5	0	25	22	0	0	0	0	0
H 533	H3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS	17	12	17	5	16	50	17	14	0	0	8	0
H 534	H3-23 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS	17	4	17	0	16	25	17	14	0	0	0	0
H 535	H3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS	12	8	9	5	16	25	11	14	0	0	8	0
H 536	H3-25 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS	10	8	9	5	11	25	6	7	0	0	8	0
H 537	H3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS	5	8	4	5	5	25	0	7	0	0	8	0
H 538	H3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF OSCILLATORS	29	16	35	10	21	50	39	21	0	25	0	50
I 539	I1-01 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB	45	40	52	33	37	75	61	36	0	25	15	50
I 540	I1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS	40	24	43	19	37	50	50	36	0	25	15	0
I 541	I1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS	36	32	39	24	32	75	44	29	0	25	15	50
I 542	I1-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS	29	24	30	19	26	50	33	21	0	25	15	0
I 543	I1-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS	43	28	48	24	37	50	56	36	0	25	15	0
I 544	I1-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUIT COMPONENTS	36	28	39	19	32	75	44	29	0	25	15	50
I 545	I1-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS	43	28	48	24	37	50	56	36	0	25	15	0
I 546	I1-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS	33	28	35	19	32	75	39	29	0	25	15	50
I 547	I1-09 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUITS	26	28	30	19	21	75	33	14	0	25	15	50

MULTIVIBRATORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
I 548	11-10	DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORKS	31	28	35	19	26	75	39	21	0	25	15	50
I 549	11-11	DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTALS	29	4	30	0	26	25	33	21	0	25	0	0
I 550	11-12	DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T REMEMBER WHICH TYPE OF FDD	14	4	22	5	5	0	22	7	0	0	0	0
I 551	11-13	DO YOU WORK WITH ASTABLE MULTIVIBRATORS	31	36	39	29	21	75	44	14	0	25	15	50
I 552	11-14	DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS	33	40	39	33	26	75	44	21	0	25	15	50
I 553	11-15	DO YOU WORK WITH BISTABLE MULTIVIBRATORS	36	40	39	33	32	75	44	29	0	25	15	50
I 554	11-16	DO YOU WORK WITH DON'T REMEMBER WHICH TYPE MULTIVIBRATORS	17	0	26	0	5	0	28	7	0	0	0	0
I 555	12-01	DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB	50	40	57	33	42	75	67	43	0	25	15	50
I 556	12-02	DO YOU WORK WITH SERIES DIODE LIMITERS	33	32	39	24	24	75	44	21	0	25	15	50
I 557	12-03	DO YOU WORK WITH SHUNT DIODE LIMITERS	29	28	30	24	26	50	33	21	0	25	15	50
I 558	12-04	DO YOU WORK WITH LIMITERS WITH BIAS	31	28	35	19	26	75	39	21	0	25	15	50
I 559	12-05	DO YOU WORK WITH ZENER DIODE LIMITERS	31	36	39	33	21	50	44	14	0	25	15	0
I 560	12-06	DO YOU WORK WITH TRANSISTOR LIMITERS	29	40	30	33	26	75	33	21	0	25	15	50
I 561	12-07	DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS	24	0	35	0	11	0	39	14	0	0	0	0
I 562	12-08	DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS	31	32	30	24	32	75	33	36	0	0	15	50
I 563	12-09	DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS	31	32	35	24	26	75	39	29	0	0	15	50
I 564	12-10	DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING CIRCUIT	14	0	22	0	5	0	28	7	0	0	0	0
I 565	13-01	IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH CONTAINS ELECTRON TUBES	14	4	17	0	11	25	22	0	0	25	0	0
I 566	13-02	DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD	14	4	17	0	11	25	22	0	0	25	0	0
I 567	13-03	DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES	7	0	9	0	5	0	11	0	0	25	0	0
I 568	13-04	DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES	10	4	13	0	5	25	17	0	0	25	0	0
I 569	13-05	DO YOU USE SCOPES TO CHECK ELECTRON TUBES	12	4	13	0	11	25	17	0	0	25	0	0
I 570	13-06	DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES	10	4	9	0	11	25	11	0	0	25	0	0
I 571	13-07	DO YOU USE OR REFER TO CUTOFF	7	4	13	0	0	25	17	0	0	0	0	0
I 572	13-08	DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING	2	4	4	0	0	25	6	0	0	0	0	0
I 573	13-09	DO YOU USE OR REFER TO PEAK CURRENT RATING	0	4	0	0	0	25	0	0	0	0	0	0
I 574	13-10	DO YOU USE OR REFER TO TRANSIT TIME	0	4	0	0	0	25	0	0	0	0	0	0
I 575	13-11	DO YOU USE OR REFER TO PLATE DISSIPATION RATING	0	4	0	0	0	25	0	0	0	0	0	0
I 576	13-12	DO YOU USE OR REFER TO SATURATION	2	4	4	0	0	25	6	0	0	0	0	0
I 577	13-13	DO YOU USE OR REFER TO DC PLATE RESISTANCE	2	4	4	0	0	25	6	0	0	0	0	0
I 578	13-14	DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE RESISTANCE FOR ELECTRON TUBES	0	0	0	0	0	0	0	0	0	0	0	0
I 579	13-15	DO YOU USE OR REFER TO PLATE VOLTAGE	7	4	9	0	5	25	11	0	0	0	0	0
I 580	13-16	DO YOU USE OR REFER TO PLATE CURRENT	2	4	4	0	0	25	6	0	0	0	0	0
I 581	13-17	DO YOU USE OR REFER TO GRID VOLTAGE	10	4	13	0	5	25	17	0	0	0	0	0
I 582	13-18	DO YOU USE OR REFER TO GRID CURRENT	2	4	4	0	0	25	6	0	0	0	0	0
I 583	13-19	DO YOU USE OR REFER TO CATHODE VOLTAGE	10	4	13	0	5	25	17	0	0	0	0	0
I 584	13-20	DO YOU USE OR REFER TO CATHODE CURRENT	2	4	4	0	0	25	6	0	0	0	0	0
I 585	13-21	DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)	0	0	0	0	0	0	0	0	0	0	0	0

LIMITERS AND CLAMPERS

ELECTRON TUBES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 206	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
I 586	13-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE AMPLIFICATION FACTORS	0	0	0	0	0	0	0	0	0	0	0	0
I 587	13-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC) AMPLIFICATION FACTORS	2	0	0	0	5	0	0	0	0	0	0	0
I 588	13-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS)	0	0	0	0	0	0	0	0	0	0	0	0
I 589	13-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE TRANSCONDUCTANCES	0	0	0	0	0	0	0	0	0	0	0	0
I 590	13-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE	0	0	0	0	0	0	0	0	0	0	0	0
I 591	13-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE RESISTANCE	0	0	0	0	0	0	0	0	0	0	0	0
I 592	13-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE	2	0	0	0	5	0	0	0	0	0	0	0
I 593	13-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES	0	0	0	0	0	0	0	0	0	0	0	0
I 594	13-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE VOLTAGE FOR A SPECIFIED BIAS	0	4	0	0	0	25	0	0	0	0	0	0
I 595	13-31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS	0	4	0	0	0	25	0	0	0	0	0	0
I 596	13-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF	2	4	4	0	0	25	6	0	0	0	0	0
I 597	13-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION	2	4	4	0	0	25	6	0	0	0	0	0
I 598	13-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN	5	0	4	0	5	0	6	0	0	25	0	0
I 599	13-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER EFFICIENCY	2	0	4	0	0	0	6	0	0	0	0	0
I 600	13-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	2	0	4	0	0	0	6	0	0	0	0	0
I 601	13-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0	0	0	0	0	0	0
I 602	13-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	2	0	4	0	0	0	6	0	0	0	0	0
I 603	13-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0	0	0	0	0	0	0
I 604	13-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE	0	0	0	0	0	0	0	0	0	0	0	0
I 605	13-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION	5	0	4	0	5	0	6	0	0	0	0	0
I 606	13-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS	10	0	9	0	11	0	11	0	0	25	0	0
I 607	13-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE ELECTRON TUBES YOU WORK ON	0	0	0	0	0	0	0	0	0	0	0	0
I 608	13-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS	0	0	0	0	0	0	0	0	0	0	0	0
J 609	J1-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB	2	0	0	0	5	0	0	0	0	25	0	0
J 610	J1-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	0	0	0	0	0	0	0	0	0	0	0	0

ELECTRON TUBE AMPLIFIERS AND CIRCUITS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
J 611	J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
J 612	J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
J 613	J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
J 614	J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
J 615	J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE OF AMPLIFIER	2	0	0	0	5	0	0	0	0	25	0	0
	SPECIAL PURPOSE ELECTRON TUBES												
J 616	J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)	5	0	9	0	0	0	11	0	0	0	0	0
J 617	J2-02 DO YOU WORK WITH CATHODE-RAY TUBES	26	12	26	10	26	25	28	14	50	50	0	0
J 618	J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM POWER TUBES	0	0	0	0	0	0	0	0	0	0	0	0
J 619	J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM POWER TUBES ARE USED	2	0	4	0	0	0	0	0	50	0	0	0
J 620	J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF THYRATRONS	2	0	0	0	5	0	0	0	0	25	0	0
J 621	J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH THYRATRONS ARE USED	5	0	0	0	11	0	0	0	0	25	0	0
J 622	J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)	19	12	17	10	21	25	22	14	0	25	0	0
J 623	J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)	17	4	13	0	21	25	17	14	0	25	0	0
J 624	J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)	17	4	13	0	21	25	17	14	0	25	0	0
J 625	J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS	14	4	13	0	16	25	17	14	0	0	0	0
J 626	J2-11 DO YOU USE OR REFER TO AQUADAG COATINGS	5	0	4	0	5	0	6	0	0	0	0	0
J 627	J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS	14	4	9	0	21	25	11	14	0	25	0	0
J 628	J2-13 DO YOU USE OR REFER TO PERSISTENCE	0	4	0	0	0	25	0	0	0	0	0	0
J 629	J2-14 DO YOU USE OR REFER TO DECAY TIMES	2	4	0	0	5	25	0	0	0	25	0	0
J 630	J2-15 DO YOU USE OR REFER TO FLUORESCENCE	2	0	4	0	0	0	6	0	0	0	0	0
J 631	J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE	5	4	9	0	0	25	11	0	0	0	0	0
	HETERODYNING, MODULATION, AND DEMODULATION												
J 632	J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	21	0	26	0	16	0	17	7	100	25	0	0
J 633	J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	19	0	22	0	16	0	11	7	50	25	0	0
J 634	J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS	17	0	17	0	16	0	6	7	50	25	0	0
J 635	J3-04 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS	2	0	0	0	5	0	0	0	0	25	0	0
J 636	J3-05 DO YOU PERFORM TASKS ON REACTANCE MODULATORS	7	0	9	0	5	0	6	0	0	25	0	0
J 637	J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATORS	10	0	13	0	5	0	11	0	0	25	0	0
	AM SYSTEMS												
K 638	K1-01 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	0	0	0	0	0	0	0	0	0	0	0	0
K 639	K1-02 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	0	0	0	0	0	0
K 640	K1-03 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	0	0	0	0	0	0
K 641	K1-04 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 216
K 642	K1-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	0	0	0	0	0	0
K 643	K1-06 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	0	0	0	0	0	0	0	0
K 644	K1-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	0	0	0	0	0	0
K 645	K1-08 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	0	0	0	0	0	0	0	0
K 646	K1-09 DO YOU PERFORM TASKS ON RF OSCILLATORS	0	0	0	0	0	0	0	0	0	0	0	0
K 647	K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
K 648	K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
K 649	K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
K 650	K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS	0	0	0	0	0	0	0	0	0	0	0	0
K 651	K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
K 652	K1-15 DO YOU PERFORM TASKS ON DETECTORS	0	0	0	0	0	0	0	0	0	0	0	0
K 653	K1-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE	0	0	0	0	0	0	0	0	0	0	0	0
K 654	K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS	0	0	0	0	0	0	0	0	0	0	0	0
K 655	K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS	0	0	0	0	0	0	0	0	0	0	0	0
K 656	K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS	2	0	4	0	0	0	6	0	0	0	0	0
K 657	K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS	0	0	0	0	0	0	0	0	0	0	0	0
K 658	K1-21 DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION	0	0	0	0	0	0	0	0	0	0	0	0
K 659	K1-22 DO YOU USE OR REFER TO BANDPASS DISTORTION	0	0	0	0	0	0	0	0	0	0	0	0
K 660	K1-23 DO YOU USE OR REFER TO SQUARE LAW DISTORTION	0	0	0	0	0	0	0	0	0	0	0	0
K 661	K1-24 DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE	0	0	0	0	0	0	0	0	0	0	0	0
K 662	K1-25 DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS	0	0	0	0	0	0	0	0	0	0	0	0
K 663	K1-26 DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR IMAGE REJECTION RATIOS	0	0	0	0	0	0	0	0	0	0	0	0
K 664	K1-27 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM TRANSMITTER SCHEMATIC DIAGRAMS	0	0	0	0	0	0	0	0	0	0	0	0
K 665	K1-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM RECEIVER SCHEMATIC DIAGRAMS	0	0	0	0	0	0	0	0	0	0	0	0
K 666	K2-01 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	2	0	0	0	5	0	0	0	0	0	0	0
	FM SYSTEMS												
K 667	K2-02 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS	2	0	0	0	5	0	0	0	0	0	0	0
K 668	K2-03 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS	2	0	0	0	5	0	0	0	0	0	0	0
K 669	K2-04 DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS	2	0	0	0	5	0	0	0	0	0	0	0
K 670	K2-05 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS	2	0	0	0	5	0	0	0	0	0	0	0
K 671	K2-06 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS	2	0	0	0	5	0	0	0	0	0	0	0
K 672	K2-07 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS	2	0	0	0	5	0	0	0	0	0	0	0
K 673	K2-08 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS	2	0	0	0	5	0	0	0	0	0	0	0
K 674	K2-09 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS	2	0	0	0	5	0	0	0	0	0	0	0
K 675	K2-10 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS	2	0	0	0	5	0	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
K 676	K2-11 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)	2	0	0	0	5	0	0	0	0	0	0	0
K 677	K2-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS	2	0	0	0	5	0	0	0	0	0	0	0
K 678	K2-13 DO YOU PERFORM TASKS ON RF AMPLIFIERS	2	0	0	0	5	0	0	0	0	0	0	0
K 679	K2-14 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	2	0	0	0	5	0	0	0	0	0	0	0
K 680	K2-15 DO YOU PERFORM TASKS ON IF AMPLIFIERS	2	0	0	0	5	0	0	0	0	0	0	0
K 681	K2-16 DO YOU PERFORM TASKS ON LIMITERS	2	0	0	0	5	0	0	0	0	0	0	0
K 682	K2-17 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS	2	0	0	0	5	0	0	0	0	0	0	0
K 683	K2-18 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS	2	0	0	0	5	0	0	0	0	0	0	0
K 684	K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS	2	0	0	0	5	0	0	0	0	0	0	0
K 685	K3-01 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS	10	4	13	0	5	25	11	0	0	0	0	0
	NUMBERING SYSTEMS												
K 686	K3-02 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS	38	16	61	10	11	50	61	7	50	0	0	0
K 687	K3-03 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS	14	4	17	0	11	25	17	7	0	0	0	0
K 688	K3-04 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS	12	4	17	0	5	25	17	0	0	0	0	0
K 689	K3-05 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS	38	12	61	5	11	50	67	7	0	0	0	0
K 690	K3-06 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS	14	4	17	0	11	25	22	7	0	0	0	0
K 691	K3-07 DO YOU ADD BINARY NUMBERS TO GET A SUM	33	12	52	5	11	50	61	7	0	0	0	0
K 692	K3-08 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD	21	0	30	0	11	0	33	7	0	0	0	0
K 693	K3-09 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD	24	8	35	0	11	50	44	7	0	0	0	0
K 694	K3-10 DO YOU ADD OCTAL NUMBERS TO GET A SUM	12	4	17	0	5	25	22	0	0	0	0	0
L 695	L1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS	52	32	52	33	53	25	67	57	0	25	8	0
	LOGIC FUNCTIONS												
L 696	L1-02 DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES	45	8	48	5	42	25	61	43	0	25	8	0
L 697	L1-03 DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES	45	8	48	5	42	25	61	43	0	25	8	0
L 698	L1-04 DO YOU CONSTRUCT TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS	45	8	48	5	42	25	61	43	0	25	8	0
L 699	L1-05 DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS OR GATES	43	8	48	5	37	25	61	36	0	25	8	0
L 700	L1-06 DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES	48	16	52	14	42	25	67	43	0	25	8	0
L 701	L1-07 DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES	48	16	52	14	42	25	67	43	0	25	8	0
L 702	L1-08 DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS	43	16	48	14	37	25	61	43	0	0	8	0
L 703	L1-09 DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS	45	16	48	14	42	25	61	43	0	25	8	0
L 704	L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES	55	28	52	29	58	25	67	64	0	25	8	0
L 705	L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES	55	28	52	29	58	25	67	64	0	25	8	0
L 706	L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR GATES	50	32	48	33	53	25	61	57	0	25	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
L 707	L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE OR GATES	50	32	48	33	53	25	61	57	0	25	8	0
L 708	L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS	24	24	26	19	21	50	33	21	0	0	8	50
	BOOLEAN EQUATIONS												
L 709	L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS	10	4	9	5	11	0	11	7	0	0	8	0
L 710	L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS	10	8	13	5	5	25	17	7	0	0	8	0
L 711	L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS	14	4	17	5	11	0	22	7	0	0	8	0
L 712	L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES	21	20	22	14	21	50	28	21	0	0	8	50
L 713	L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS	12	8	13	5	11	25	17	7	0	0	8	0
L 714	L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA	17	8	17	5	16	25	22	14	0	0	8	0
L 715	L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES	7	8	4	10	11	0	6	7	0	0	8	0
L 716	L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS	7	4	9	5	5	0	11	7	0	0	8	0
L 717	L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE	21	16	22	10	21	50	28	21	0	0	8	50
L 718	L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS	10	4	13	0	5	25	17	0	0	0	0	0
L 719	L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS	12	8	17	5	5	25	22	0	0	0	8	0
L 720	L2-13 DO YOU WORK WITH ASTABLE (FREE RUNNING) MULTIVIBRATORS	17	12	26	5	5	50	33	0	0	0	8	50
L 721	L2-14 DO YOU WORK WITH BISTABLE (FLIP-FLOP) MULTIVIBRATORS	19	16	26	10	11	50	33	7	0	0	8	50
L 722	L2-15 DO YOU WORK WITH MONOSTABLE (ONE-SHOT) MULTIVIBRATORS	19	16	26	10	11	50	33	7	0	0	8	50
L 723	L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS	21	20	26	19	16	25	33	14	0	0	8	0
L 724	L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR SYMBOLS	21	16	26	14	16	25	33	14	0	0	8	0
L 725	L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS	21	24	26	19	16	50	33	14	0	0	8	50
L 726	L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES	21	16	26	14	16	25	33	14	0	0	8	0
L 727	L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS	21	16	26	14	16	25	33	14	0	0	8	0
L 728	L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS	21	16	26	14	16	25	33	14	0	0	8	0
L 729	L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS	24	16	26	14	21	25	33	21	0	0	8	0
L 730	L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS	21	16	26	14	16	25	33	14	0	0	8	0
L 731	L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS	21	16	26	14	16	25	33	14	0	0	8	0
L 732	L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS	14	8	17	5	11	25	22	14	0	0	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
L 733	L3-01 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB	55	52	48	52	63	50	50	64	50	50	31	0
L 734	L3-02 DO YOU USE OR REFER TO UP-COUNTERS	48	40	43	38	53	50	50	43	50	75	31	0
L 735	L3-03 DO YOU USE OR REFER TO DOWN-COUNTERS	43	32	43	29	42	50	50	36	50	50	23	0
L 736	L3-04 DO YOU USE OR REFER TO SERIAL COUNTERS	40	16	43	14	37	25	54	43	0	0	16	0
L 737	L3-05 DO YOU USE OR REFER TO PARALLEL COUNTERS	31	12	26	14	37	0	33	43	0	0	8	0
L 738	L3-06 DO YOU USE OR REFER TO RING COUNTERS	17	0	9	0	26	0	11	29	0	0	0	0
L 739	L3-07 DO YOU USE OR REFER TO DECADE COUNTERS	29	28	30	29	16	25	39	21	0	0	16	0
L 740	L3-08 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS	33	20	30	14	37	50	39	29	0	50	8	0
L 741	L3-09 DO YOU USE OR REFER TO DOWN CLOCKS	45	20	43	19	47	25	50	43	50	50	8	0
L 742	L3-10 DO YOU USE OR REFER TO UP CLOCKS	45	20	43	19	47	25	50	43	50	50	8	0
L 743	L3-11 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	36	24	43	19	26	50	54	21	0	25	8	0
L 744	L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-FLOPS	29	8	39	5	16	25	50	14	0	0	0	0
L 745	L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS	24	12	30	14	16	0	39	14	0	0	0	0
L 746	L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS	14	0	13	0	16	0	17	14	0	0	0	0
L 747	L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER	29	0	35	0	21	0	44	21	0	0	0	0
L 748	L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	29	8	30	10	26	0	39	21	0	25	0	0
L 749	L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS	26	16	35	14	16	25	44	14	0	0	16	0
L 750	L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	24	16	26	10	21	50	33	7	0	50	0	0
L 751	L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-FLOPS	17	4	22	0	11	25	28	7	0	0	0	0
L 752	L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTERS	17	0	22	0	11	0	28	7	0	0	0	0
L 753	L3-21 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR OTHER TYPES OF COUNTERS	26	20	35	19	16	25	33	7	50	25	16	0
L 754	L3-22 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS	14	0	17	0	11	0	22	14	0	0	0	0
L 755	L3-23 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES	14	0	9	0	21	0	11	21	0	0	0	0
L 756	L3-24 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT	31	20	35	19	26	25	44	21	0	25	8	0
M 757	M1-01 DO YOU WORK WITH SAWTOOTH WAVE GENERATORS	60	24	52	19	68	50	61	71	0	50	16	0
M 758	M1-02 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATORS	21	12	22	10	21	25	28	21	0	0	16	0
M 759	M1-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE FEEDBACK	43	28	43	24	42	50	50	43	0	25	16	0
M 760	M1-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT REGENERATIVE FEEDBACK	38	16	39	14	37	25	44	36	0	25	16	0

COUNTERS

TIMING CIRCUITS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
M 761	M1-05 DO YOU WORK WITH BLOCKING OSCILLATORS	38	32	39	24	37	75	44	36	0	25	23	50
M 762	M1-06 DO YOU USE OR REFER TO RISE TIME	62	28	61	24	63	50	61	64	100	50	15	0
M 763	M1-07 DO YOU USE OR REFER TO FALL OR FLYBACK TIME	60	20	61	14	58	50	61	50	100	75	15	0
M 764	M1-08 DO YOU USE OR REFER TO SWEEP TIME	71	40	65	38	79	50	67	79	100	75	31	0
M 765	M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS	67	12	57	5	79	50	67	86	0	50	8	0
M 766	M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS	60	12	57	5	63	50	67	64	0	50	8	0
M 767	M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS	57	24	57	19	58	50	67	57	0	50	15	0
M 768	M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS	55	24	52	19	58	50	61	57	0	50	15	0
M 769	M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB	33	8	35	5	32	25	39	14	0	75	8	50
M 770	M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS	29	8	30	5	26	25	33	7	0	75	8	50
	USE OF SIGNAL GENERATORS												
M 771	M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS	26	4	30	0	21	25	33	7	0	50	0	50
M 772	M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS	26	4	26	0	26	25	28	7	0	75	0	50
M 773	M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS	19	4	22	0	16	25	22	0	0	50	0	50
M 774	M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS	7	4	9	5	5	0	11	0	0	0	8	0
M 775	M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE	14	0	13	0	16	0	17	7	0	25	0	0
M 776	M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH	24	4	22	0	26	25	22	21	0	50	0	50
M 777	M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH	17	0	17	0	16	0	17	7	0	50	0	0
M 778	M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS	17	0	17	0	16	0	17	0	0	75	0	0
M 779	M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR GENERATORS	29	64	30	62	26	75	33	14	0	50	38	50
	MOTORS AND GENERATORS												
M 780	M3-02 DO YOU INSPECT MOTORS	31	60	35	52	26	100	39	14	0	50	31	100
M 781	M3-03 DO YOU CLEAN OR LUBRICATE MOTORS	29	48	30	48	26	50	33	14	0	50	23	0
M 782	M3-04 DO YOU OPERATE MOTORS	33	64	39	57	26	100	39	14	0	50	31	100
M 783	M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS	31	64	35	57	26	100	39	14	0	50	31	100
M 784	M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS	14	40	17	38	11	50	22	7	0	25	15	0
M 785	M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS	31	68	35	62	26	100	39	14	0	50	38	100
M 786	M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS	19	28	22	24	16	50	22	14	0	0	8	0
M 787	M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS	7	8	4	5	11	25	6	7	0	25	0	0
M 788	M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES	5	12	4	10	5	25	6	7	0	0	0	0
M 789	M3-11 DO YOU PERFORM ANY TASKS ON ROTORS	5	12	4	10	5	25	6	7	0	0	0	0
M 790	M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES	5	44	4	43	5	50	6	7	0	0	23	0
M 791	M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS	2	40	4	43	0	25	6	0	0	0	23	0
M 792	M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS	2	24	4	24	0	25	6	0	0	0	8	0
M 793	M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES	2	12	4	10	0	25	6	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
M 794	M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE FORCE OR TORQUE CREATED BY A MOTOR	17	12	17	10	16	25	17	7	0	50	0	0
M 795	M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR	21	24	17	14	26	75	17	14	0	50	8	50
M 796	M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS	12	24	4	19	21	50	6	14	0	50	0	50
M 797	M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS	31	28	35	29	26	25	39	14	0	50	15	0
M 798	M3-20 DO YOU WORK WITH INDUCTION MOTORS	21	36	22	33	21	50	22	14	0	25	23	0
M 799	M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS	19	24	22	19	16	50	22	7	0	25	15	0
M 800	M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS	24	52	26	52	21	50	28	14	0	25	23	50
M 801	M3-23 DO YOU INSPECT GENERATORS	19	20	17	14	21	50	22	7	0	50	0	0
M 802	M3-24 DO YOU CLEAN OR LUBRICATE GENERATORS	14	20	9	14	21	50	11	7	0	50	0	0
M 803	M3-25 DO YOU OPERATE GENERATORS	21	16	22	10	21	50	28	7	0	50	0	0
M 804	M3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS	14	20	13	14	16	50	17	7	0	25	0	0
M 805	M3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS	7	12	9	5	5	50	11	0	0	25	0	0
M 806	M3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS	14	32	13	24	16	75	17	7	0	25	15	50
M 807	M3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS	5	12	4	5	5	50	6	0	0	25	0	0
	METER MOVEMENTS												
N 808	N1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB	67	72	61	67	74	100	56	71	50	75	46	100
N 809	N1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS	14	12	17	14	11	0	17	14	0	0	15	0
N 810	N1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS	17	12	17	14	16	0	17	21	0	0	15	0
N 811	N1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS	10	8	9	10	11	0	6	14	0	0	15	0
N 812	N1-05 DO YOU READ METER SCALES	74	72	70	67	79	100	67	79	100	75	46	100
N 813	N1-06 DO YOU EXTEND THE RANGE OF AMMETERS	38	32	30	24	47	75	33	43	0	50	15	50
N 814	N1-07 DO YOU ZERO OHMMETERS	76	68	74	62	79	100	67	79	100	75	38	100
N 815	N1-08 DO YOU ZERO AMMETERS	50	32	48	19	53	100	44	57	50	25	23	100
N 816	N1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS	45	44	43	33	47	100	50	43	0	50	15	100
N 817	N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)	43	28	43	19	42	75	50	43	0	25	15	50
	SATURABLE REACTORS AND MAGNETIC AMPLIFIERS												
N 818	N2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB	5	4	4	5	5	0	6	0	0	0	8	0
N 819	N2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	5	4	4	5	5	0	6	0	0	0	8	0
N 820	N2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	4	0	5	0	0	0	0	0	0	8	0
N 821	N2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0	0	0	0	0	0	0
N 822	N2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	5	0	4	0	5	0	6	0	0	0	0	0
N 823	N2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	5	0	4	0	5	0	6	0	0	0	0	0
N 824	N2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS	2	0	0	0	5	0	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
N	825	N2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS	0	0	0	0	0	0	0	0	0	0	0	0
N	826	N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS	2	0	0	0	5	0	0	0	0	0	0	0
N	827	N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS	2	4	0	5	5	0	0	0	0	0	8	0
N	828	N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS	2	4	0	5	5	0	0	0	0	0	8	0
N	829	N2-12 DO YOU USE OR REFER TO COERCIVE FORCE IN SATURABLE REACTORS	0	0	0	0	0	0	0	0	0	0	0	0
N	830	N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN SATURABLE REACTORS	0	0	0	0	0	0	0	0	0	0	0	0
N	831	N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE REACTORS	0	4	0	5	0	0	0	0	0	0	8	0
N	832	N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN SATURABLE REACTORS	0	4	0	5	0	0	0	0	0	0	8	0
N	833	N2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS	2	4	0	5	5	0	0	0	0	0	8	0
		WAVESHAPING CIRCUITS												
N	834	N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB	60	24	48	24	74	25	56	71	50	75	23	0
N	835	N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS	24	12	22	10	26	25	28	36	0	0	8	0
N	836	N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)	57	24	48	24	68	25	56	64	50	75	23	0
N	837	N3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)	55	24	48	24	63	25	56	64	50	50	23	0
N	838	N3-05 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)	55	16	48	14	63	25	56	64	50	50	15	0
N	839	N3-06 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS	45	20	35	19	58	25	44	57	0	50	15	0
N	840	N3-07 DO YOU USE OR REFER TO INTEGRATING CIRCUITS	50	24	39	24	63	25	50	64	0	50	23	0
N	841	N3-08 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT	33	16	26	14	42	25	33	50	0	0	23	0
N	842	N3-09 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION	21	8	22	5	21	25	22	21	0	0	8	0
N	843	N3-10 DO YOU WORK WITH SQUARE WAVE GENERATORS	38	24	30	24	47	25	39	43	0	50	23	0
N	844	N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATORS	24	12	22	14	26	0	28	29	0	0	15	0
		SINGLE SIDEBAND SYSTEMS												
O	845	01-01 DO YOU WORK ON SINGLE SIDEBAND SYSTEMS IN YOUR PRESENT JOB	7	0	4	0	11	0	0	0	0	25	0	0
O	846	01-02 DO YOU INSPECT SSB TRANSMIT OR RECEIVE SYSTEMS	5	0	4	0	5	0	0	0	0	25	0	0
O	847	01-03 DO YOU CLEAN SSB TRANSMIT OR RECEIVE SYSTEMS	5	0	4	0	5	0	0	0	0	25	0	0
O	848	01-04 DO YOU ALIGN SSB TRANSMIT OR RECEIVE SYSTEMS	7	0	4	0	11	0	0	0	0	25	0	0
O	849	01-05 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE SYSTEMS	7	0	4	0	11	0	0	0	0	25	0	0
O	850	01-06 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE COMPONENTS	7	0	4	0	11	0	0	0	0	25	0	0
O	851	01-07 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE SYSTEMS	7	0	4	0	11	0	0	0	0	25	0	0
O	852	01-08 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE COMPONENTS	7	0	4	0	11	0	0	0	0	25	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
0 853	01-09	DO YOU PERFORM TASKS ON SSB AUDIO AMPLIFIERS	2	0	0	0	5	0	0	0	0	25	0	0
0 854	01-10	DO YOU PERFORM TASKS ON SSB BALANCED MODULATORS	5	0	0	0	11	0	0	0	0	25	0	0
0 855	01-11	DO YOU PERFORM TASKS ON SSB CARRIER OSCILLATORS	5	0	4	0	5	0	0	0	0	25	0	0
0 856	01-12	DO YOU PERFORM TASKS ON SSB LC FILTERS	7	0	4	0	11	0	0	0	0	25	0	0
0 857	01-13	DO YOU PERFORM TASKS ON SSB CRYSTAL FILTERS	5	0	4	0	5	0	0	0	0	25	0	0
0 858	01-14	DO YOU PERFORM TASKS ON SSB MECHANICAL FILTERS	2	0	0	0	5	0	0	0	0	25	0	0
0 859	01-15	DO YOU PERFORM TASKS ON SSB OSCILLATORS	5	0	4	0	5	0	0	0	0	25	0	0
0 860	01-16	DO YOU PERFORM TASKS ON SSB MIXERS	7	0	4	0	11	0	0	0	0	25	0	0
0 861	01-17	DO YOU PERFORM TASKS ON SSB DRIVERS	7	0	4	0	11	0	0	0	0	25	0	0
0 862	01-18	DO YOU PERFORM TASKS ON SSB POWER AMPLIFIERS	7	0	4	0	11	0	0	0	0	25	0	0
0 863	01-19	DO YOU PERFORM TASKS ON SSB RF AMPLIFIERS	7	0	4	0	11	0	0	0	0	25	0	0
0 864	01-20	DO YOU PERFORM TASKS ON SSB FREQUENCY CONVERTERS	5	0	4	0	5	0	0	0	0	25	0	0
0 865	01-21	DO YOU PERFORM TASKS ON SSB IF AMPLIFIERS	7	0	4	0	11	0	0	0	0	25	0	0
0 866	01-22	DO YOU PERFORM TASKS ON SSB DEMODULATORS	7	0	4	0	11	0	0	0	0	25	0	0
0 867	01-23	DO YOU PERFORM TASKS ON SSB DON'T REMEMBER WHICH SSB SYSTEM STAGES	2	0	4	0	0	0	0	0	0	0	0	0
0 868	01-24	DO YOU USE OR REFER TO SELECTIVE FADING	0	0	0	0	0	0	0	0	0	0	0	0
0 869	01-25	DO YOU USE OR REFER TO PEAK POWER	5	0	4	0	5	0	0	0	0	25	0	0
0 870	01-26	DO YOU USE OR REFER TO FREQUENCY STABILITY	5	0	4	0	5	0	0	0	0	25	0	0
0 871	01-27	DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS	5	0	4	0	5	0	0	0	0	25	0	0
0 872	01-28	DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB TRANSMITTERS	5	0	4	0	5	0	0	0	0	25	0	0
0 873	01-29	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB TRANSMITTER SCHEMATIC DIAGRAMS	7	0	4	0	11	0	0	0	0	25	0	0
0 874	01-30	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB RECEIVER SCHEMATIC DIAGRAMS	7	0	4	0	11	0	0	0	0	25	0	0
0 875	02-01	DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB	12	4	17	0	5	25	22	0	0	0	0	50
		PULSE MODULATION SYSTEMS												
0 876	02-02	DO YOU INSPECT PULSE MODULATION SYSTEMS	7	0	9	0	5	0	11	0	0	0	0	0
0 877	02-03	DO YOU CLEAN PULSE MODULATION SYSTEMS	5	0	4	0	5	0	6	0	0	0	0	0
0 878	02-04	DO YOU ALIGN PULSE MODULATION SYSTEMS	10	4	13	0	5	25	17	0	0	0	0	50
0 879	02-05	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS	10	0	13	0	5	0	17	0	0	0	0	0
0 880	02-06	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM COMPONENTS	5	0	4	0	5	0	6	0	0	0	0	0
0 881	02-07	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS	10	4	13	0	5	25	17	0	0	0	0	50
0 882	02-08	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS	5	0	4	0	5	0	6	0	0	0	0	0
0 883	02-09	DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) SYSTEMS	7	0	9	0	5	0	11	0	0	0	0	0
0 884	02-10	DO YOU WORK ON PULSE-DURATION MODULATION (PDM) SYSTEMS	7	4	13	0	0	25	17	0	0	0	0	50
0 885	02-11	DO YOU WORK ON PULSE-POSITION MODULATION (PPM) SYSTEMS	2	0	4	0	0	0	6	0	0	0	0	0
0 886	02-12	DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS	2	0	4	0	0	0	6	0	0	0	0	0
0 887	02-13	DO YOU WORK ON LINE PULSING MODULATION SYSTEMS	5	4	9	0	0	25	11	0	0	0	0	50
0 888	02-14	DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF MODULATION SYSTEM	2	0	4	0	0	0	6	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK		SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
0 889	02-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLIES		10	0	13	0	5	0	17	0	0	0	0	0
0 890	02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIODES		10	0	13	0	5	0	17	0	0	0	0	0
0 891	02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORKS		10	4	13	0	5	25	17	0	0	0	0	50
0 892	02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMERS		10	0	13	0	5	0	17	0	0	0	0	0
0 893	02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THYRATRONS		7	0	9	0	5	0	11	0	0	0	0	0
0 894	02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMERS		10	0	13	0	5	0	17	0	0	0	0	0
0 895	02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBES		2	0	0	0	5	0	0	0	0	0	0	0
0 896	02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIERS		7	0	9	0	5	0	11	0	0	0	0	0
0 897	02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTERS		10	0	13	0	5	0	17	0	0	0	0	0
0 898	02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIERS		7	0	9	0	5	0	11	0	0	0	0	0
0 899	02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTORS		12	0	17	0	5	0	22	0	0	0	0	0
0 900	02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIERS		7	0	9	0	5	0	11	0	0	0	0	0
0 901	02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIERS		7	0	9	0	5	0	11	0	0	0	0	0
0 902	02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES		0	0	0	0	0	0	0	0	0	0	0	0
0 903	02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)		12	0	17	0	5	0	22	0	0	0	0	0
0 904	02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)		10	4	13	0	5	25	17	0	0	0	0	50
0 905	02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW)		12	4	17	0	5	25	22	0	0	0	0	50
0 906	02-32 DO YOU USE OR REFER TO PULSE SHAPE		10	0	13	0	5	0	17	0	0	0	0	0
0 907	02-33 DO YOU USE OR REFER TO PEAK POWER		10	0	13	0	5	0	17	0	0	0	0	0
0 908	02-34 DO YOU USE OR REFER TO AVERAGE POWER		7	0	13	0	0	0	17	0	0	0	0	0
0 909	02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)		7	4	13	0	0	25	17	0	0	0	0	50
0 910	02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)		10	4	13	0	5	25	17	0	0	0	0	50
0 911	02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS		7	0	13	0	0	0	17	0	0	0	0	0
0 912	02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS		10	0	13	0	5	0	17	0	0	0	0	0
0 913	02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS		10	0	13	0	5	0	17	0	0	0	0	0
0 914	03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB	ANTENNAS	17	4	17	5	16	0	0	7	100	25	8	0
0 915	03-02 DO YOU INSPECT ANTENNAS		17	4	17	5	16	0	0	7	100	25	8	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
0 916 03-03 DO YOU CLEAN ANTENNAS	12	4	13	5	11	0	0	0	100	25	8	0
0 917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS	12	0	13	0	11	0	0	0	100	25	0	0
0 918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS	12	0	9	0	16	0	0	7	100	25	0	0
0 919 03-06 DO YOU TROUBLESHOOT TO ANTENNAS	17	0	17	0	16	0	0	7	100	25	0	0
0 920 03-07 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS	12	0	13	0	11	0	0	0	100	25	0	0
0 921 03-08 DO YOU REMOVE OR INSTALL ANTENNAS	17	4	17	5	16	0	0	7	100	25	8	0
0 922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS	14	0	13	0	16	0	0	7	100	25	0	0
0 923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES	2	0	0	0	5	0	0	0	0	25	0	0
0 924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES	0	0	0	0	0	0	0	0	0	0	0	0
0 925 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS	0	0	0	0	0	0	0	0	0	0	0	0
0 926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS INDUCTIVE LOADS TO THE GENERATOR	0	0	0	0	0	0	0	0	0	0	0	0
0 927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR	0	0	0	0	0	0	0	0	0	0	0	0
0 928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR	0	0	0	0	0	0	0	0	0	0	0	0
0 929 03-16 DO YOU WORK WITH HERTZ ANTENNAS	7	0	4	0	11	0	0	0	0	25	0	0
0 930 03-17 DO YOU WORK WITH MARCONI ANTENNAS	2	0	4	0	0	0	0	0	0	0	0	0
0 931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS	5	0	4	0	5	0	0	0	0	25	0	0
0 932 03-19 DO YOU WORK WITH END-FIRE ARRAYS	0	0	0	0	0	0	0	0	0	0	0	0
0 933 03-20 DO YOU WORK WITH CARDIOID ARRAYS	0	0	0	0	0	0	0	0	0	0	0	0
0 934 03-21 DO YOU WORK WITH COLLINEAR ARRAYS	2	0	0	0	5	0	0	0	0	0	0	0
0 935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS	2	0	0	0	5	0	0	7	0	0	0	0
0 936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS	0	0	0	0	0	0	0	0	0	0	0	0
0 937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS	0	0	0	0	0	0	0	0	0	0	0	0
0 938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS	0	0	0	0	0	0	0	0	0	0	0	0
0 939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION	0	0	0	0	0	0	0	0	0	0	0	0
0 940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD	0	0	0	0	0	0	0	0	0	0	0	0
0 941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED	5	0	0	0	11	0	0	0	0	25	0	0
0 942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED	0	0	0	0	0	0	0	0	0	0	0	0
0 943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON	0	0	0	0	0	0	0	0	0	0	0	0
0 944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS	0	0	0	0	0	0	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
O 946	03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS	2	0	0	0	5	0	0	0	0	25	0	0
O 946	03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS	5	0	4	0	5	0	0	0	0	25	0	0
O 947	03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS	7	0	4	0	11	0	0	0	0	25	0	0
O 948	03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DON'T REMEMBER WHAT KIND OF ELEMENTS	7	0	9	0	5	0	0	0	50	0	0	0
O 949	03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS	5	0	0	0	11	0	0	7	0	25	0	0
O 850	03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS	5	0	0	0	11	0	0	7	0	0	0	0
O 851	03-38 DO YOU WORK ON DON'T REMEMBER THE DIRECTIONALITY	7	4	9	5	5	0	0	0	50	0	8	0
O 852	03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS	2	0	4	0	0	0	0	0	50	0	0	0
P 953	P1-01 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS BETWEEN RECEIVERS AND ANTENNAS, TELEPHONE LEADS, AS WELL AS HIGH VOLTAGE POWER LINES, ETC. DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES	5	4	4	0	5	25	6	0	0	25	0	0
	TRANSMISSION LINES												
P 954	P1-02 DO YOU REFER TO OR USE COPPER LOSS OR I2R LOSS IN TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 955	P1-03 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES	0	4	0	0	0	25	0	0	0	0	0	0
P 956	P1-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION LINES	2	0	4	0	0	0	6	0	0	0	0	0
P 957	P1-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 958	P1-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 959	P1-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES	2	4	0	0	5	25	0	0	0	25	0	0
P 960	P1-08 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES	2	4	0	0	5	25	0	0	0	25	0	0
P 961	P1-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES	2	0	0	0	5	0	0	0	0	25	0	0
P 962	P1-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES	5	4	4	0	5	25	6	0	0	25	0	0
P 963	P1-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 964	P1-12 DO YOU TROUBLESHOOT TRANSMISSION LINES	5	4	4	0	5	25	6	0	0	25	0	0
P 965	P1-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION (OPEN, SHORTED, CAPACITIVE, INDUCTIVE)	2	4	0	0	5	25	0	0	0	25	0	0
P 966	P1-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS	5	0	4	0	5	0	6	0	0	25	0	0
P 967	P1-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS	5	4	4	0	5	25	6	0	0	25	0	0
P 968	P1-16 DO YOU MEASURE STANDING WAVE RATIOS (SR) OF TRANSMISSION LINES	2	0	4	0	0	0	6	0	0	0	0	0
P 969	P1-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES	2	0	4	0	0	0	6	0	0	0	0	0
P 970	P1-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS	0	0	0	0	0	0	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 216
P 971	P1-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS	0	0	0	0	0	0	0	0	0	0	0	0
P 972	P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING	0	0	0	0	0	0	0	0	0	0	0	0
P 973	P1-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA	2	0	4	0	0	0	6	0	0	0	0	0
P 974	P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (ZO) OF TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 975	P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (ZO) OF TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 976	P1-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 977	P1-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES	0	0	0	0	0	0	0	0	0	0	0	0
P 978	P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES	0	0	0	0	0	0	0	0	0	0	0	0
P 979	P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTH FOR GIVEN FREQUENCIES	0	0	0	0	0	0	0	0	0	0	0	0
P 980	P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH INCREASES	2	4	4	0	0	25	6	0	0	0	0	0
P 981	P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES	2	0	0	0	5	0	0	0	0	25	0	0
P 982	P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES	2	0	4	0	0	0	6	0	0	0	0	0
P 983	P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING	0	0	0	0	0	0	0	0	0	0	0	0
	WAVEGUIDES AND CAVITY RESONATORS												
P 984	P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB	14	0	13	0	16	0	0	0	100	50	0	0
P 985	P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS	10	0	9	0	11	0	0	0	50	25	0	0
P 986	P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS	7	0	9	0	5	0	0	0	50	25	0	0
P 987	P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS	10	0	4	0	16	0	0	7	0	25	0	0
P 988	P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS	2	0	0	0	5	0	0	0	0	0	0	0
P 989	P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS	14	0	13	0	16	0	0	7	100	25	0	0
P 990	P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS	7	0	4	0	11	0	0	7	50	25	0	0
P 991	P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS	12	0	9	0	16	0	0	7	50	25	0	0
P 992	P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES	14	0	9	0	21	0	0	7	50	50	0	0
P 993	P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS	17	0	13	0	21	0	0	7	100	50	0	0
P 994	P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS	14	0	13	0	16	0	0	7	100	25	0	0
P 995	P2-12 DO YOU REMOVE OR INSTALL E BENDS	5	0	0	0	11	0	0	0	0	25	0	0
P 996	P2-13 DO YOU REMOVE OR INSTALL H BENDS	5	0	0	0	11	0	0	0	0	25	0	0
P 997	P2-14 DO YOU REMOVE OR INSTALL OTHER BENDS	14	0	13	0	16	0	0	0	100	50	0	0
P 998	P2-15 DO YOU REMOVE OR INSTALL CHOKE JOINTS	0	0	0	0	0	0	0	0	0	0	0	0
P 999	P2-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS	0	0	0	0	0	0	0	0	0	0	0	0
P1000	P2-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS	5	0	0	0	11	0	0	0	0	25	0	0
P1001	P2-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS	2	0	0	0	5	0	0	0	0	0	0	0
P1002	P2-19 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES	0	0	0	0	0	0	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
P1003	P2-20 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES	0	0	0	0	0	0	0	0	0	0	0	0
P1004	P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES	2	0	0	0	5	0	0	0	0	25	0	0
P1005	P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES	0	0	0	0	0	0	0	0	0	0	0	0
P1006	P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES	0	0	0	0	0	0	0	0	0	0	0	0
P1007	P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS	0	0	0	0	0	0	0	0	0	0	0	0
P1008	P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS	0	0	0	0	0	0	0	0	0	0	0	0
P1009	P2-26 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS	0	0	0	0	0	0	0	0	0	0	0	0
P1010	P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OF .7 WAVELENGTHS OF THE OPERATING FREQUENCY	2	0	0	0	5	0	0	0	0	25	0	0
P1011	P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35 USED AS AN AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0
P1012	P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS) WHICH WAVEGUIDES ARE MADE OF	2	0	0	0	5	0	0	0	0	25	0	0
P1013	P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION	0	0	0	0	0	0	0	0	0	0	0	0
P1014	P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR DIRECTION OF "H" FIELD IN WAVEGUIDES	0	0	0	0	0	0	0	0	0	0	0	0
P1015	P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES	2	0	0	0	5	0	0	0	0	25	0	0
P1016	P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0	0	0	0	0	0	0	0
P1017	P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0	0	0	0	0	0	0	0
P1018	P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	7	0	4	0	11	0	0	0	50	50	0	0
P1019	P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	7	0	4	0	11	0	0	0	50	50	0	0
P1020	P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	0	0	0	0	0	0	0	0	0	0
P1021	P2-38 ARE APERTURES (WINDOWS OR IRISES) USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	2	0	0	0	5	0	0	0	0	25	0	0
P1022	P2-39 ARE DON'T REMEMBER THE KIND OF ENERGY COUPLING USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	7	0	9	0	5	0	0	0	50	0	0	0
P1023	P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA	0	0	0	0	0	0	0	0	0	0	0	0
P1024	P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA	0	0	0	0	0	0	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
P1025	P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA	0	0	0	0	0	0	0	0	0	0	0	0
P1026	P2-43 ARE CHOKE JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	0	0	0	0	0	0	0	0	0	0
P1027	P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	2	0	4	0	0	0	0	0	50	0	0	0
P1028	P2-45 ARE DON'T REMEMBER THE KIND OF JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	10	0	4	0	16	0	0	0	0	50	0	0
P1029	P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING	0	0	0	0	0	0	0	0	0	0	0	0
P1030	P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING	5	0	0	0	11	0	0	0	0	50	0	0
P1031	P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING	2	0	0	0	5	0	0	0	0	25	0	0
P1032	P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER THE METHOD OF TUNING	2	0	4	0	0	0	0	0	0	0	0	0
P1033	P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS	5	0	0	0	11	0	0	0	0	25	0	0
P1034	P3-01 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR MAGNETRONS	10	0	9	0	11	0	0	0	100	25	0	0
	MICROWAVE AMPLIFIERS AND OSCILLATORS												
P1035	P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE	2	0	0	0	5	0	0	0	0	25	0	0
P1036	P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME	2	0	0	0	5	0	0	0	0	25	0	0
P1037	P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE	2	0	0	0	5	0	0	0	0	25	0	0
P1038	P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY	2	0	0	0	5	0	0	0	0	25	0	0
P1039	P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION	0	0	0	0	0	0	0	0	0	0	0	0
P1040	P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING	0	0	0	0	0	0	0	0	0	0	0	0
P1041	P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS	0	0	0	0	0	0	0	0	0	0	0	0
P1042	P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1043	P3-10 DO YOU WORK WITH REFLEX KLYSTRONS	5	0	0	0	11	0	0	0	0	25	0	0
P1044	P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)	10	0	9	0	11	0	0	0	100	25	0	0
P1045	P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS	5	0	4	0	5	0	0	0	50	25	0	0
P1046	P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS	2	0	0	0	5	0	0	0	0	25	0	0
P1047	P3-14 DO YOU WORK WITH MAGNETRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1048	P3-15 DO YOU INSPECT KLYSTRONS OR TWT	10	0	9	0	11	0	0	0	100	25	0	0
P1049	P3-16 DO YOU CLEAN KLYSTRONS OR TWT	10	0	9	0	11	0	0	0	100	25	0	0
P1050	P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY	2	0	0	0	5	0	0	0	0	25	0	0
P1051	P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY	2	0	0	0	5	0	0	0	0	25	0	0
P1052	P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR TWT	10	0	9	0	11	0	0	0	100	25	0	0
P1053	P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT	5	0	0	0	11	0	0	0	0	25	0	0
P1054	P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT	10	0	9	0	11	0	0	0	100	25	0	0
P1055	P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS	2	0	0	0	5	0	0	0	0	25	0	0
P1056	P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS	2	0	0	0	5	0	0	0	0	25	0	0
P1057	P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS	2	0	0	0	5	0	0	0	0	25	0	0
P1058	P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS	2	0	0	0	5	0	0	0	0	25	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
P1059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
P1060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC AMPLIFIERS	0	0	0	0	0	0	0	0	0	0	0	0
P1061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS	2	0	0	0	5	0	0	0	0	25	0	0
P1062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIER	2	0	0	0	5	0	0	0	0	25	0	0
P1063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS	2	0	0	0	5	0	0	0	0	25	0	0
P1064 P3-31 DO YOU INSPECT MAGNETRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1065 P3-32 DO YOU CLEAN MAGNETRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1066 P3-33 DO YOU ADJUST MAGNETRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1067 P3-34 DO YOU TUNE MAGNETRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS	2	0	0	0	5	0	0	0	0	25	0	0
P1070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON	2	0	0	0	5	0	0	0	0	25	0	0
P1071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS	2	0	0	0	5	0	0	0	0	25	0	0
P1072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS COLLECTOR PLATES	0	0	0	0	0	0	0	0	0	0	0	0
P1073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER CAVITIES	0	0	0	0	0	0	0	0	0	0	0	0
P1074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER GRIDS	0	0	0	0	0	0	0	0	0	0	0	0
P1075 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS FEEDBACK LOOPS	0	0	0	0	0	0	0	0	0	0	0	0
P1076 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS DRIFT SPACES	0	0	0	0	0	0	0	0	0	0	0	0
P1077 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER GRIDS	0	0	0	0	0	0	0	0	0	0	0	0
P1078 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER CAVITIES	0	0	0	0	0	0	0	0	0	0	0	0
P1079 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CONTROL GRIDS	0	0	0	0	0	0	0	0	0	0	0	0
P1080 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATHODES	0	0	0	0	0	0	0	0	0	0	0	0
P1081 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON REPELLER (REFLECTOR) PLATES	0	0	0	0	0	0	0	0	0	0	0	0
P1082 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRIDS	2	0	0	0	5	0	0	0	0	25	0	0
P1083 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID CAVITY GAPS	0	0	0	0	0	0	0	0	0	0	0	0
P1084 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON RESONANT CAVITIES	5	0	0	0	11	0	0	0	0	25	0	0
P1085 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON MAGNETIC COUPLING LOOPS	2	0	0	0	5	0	0	0	0	25	0	0
P1086 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON FILAMENTS	5	0	0	0	11	0	0	0	0	25	0	0
P1087 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON CATHODES	2	0	0	0	5	0	0	0	0	25	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK		SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
P1088	P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON OUTPUT LEADS	2	0	0	0	5	0	0	0	0	25	0	0
P1089	P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES FILAMENTS	2	0	0	0	5	0	0	0	0	0	0	0
P1090	P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES CATHODES	2	0	0	0	5	0	0	0	0	0	0	0
P1091	P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES MODULATOR GRIDS	2	0	0	0	5	0	0	0	0	0	0	0
P1092	P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES ANODES	2	0	0	0	5	0	0	0	0	0	0	0
P1093	P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES HELIXES	5	0	0	0	11	0	0	0	0	25	0	0
P1094	P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES COLLECTORS	0	0	0	0	0	0	0	0	0	0	0	0
P1095	P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES MAGNETS	0	0	0	0	0	0	0	0	0	0	0	0
P1096	P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES ATTENUATORS	5	0	0	0	11	0	0	0	0	25	0	0
P1097	P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE CIRCULATORS	0	0	0	0	0	0	0	0	0	0	0	0
P1098	P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL CAVITIES	0	0	0	0	0	0	0	0	0	0	0	0
P1099	P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER CAVITIES	0	0	0	0	0	0	0	0	0	0	0	0
P1100	P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR DIODES	0	0	0	0	0	0	0	0	0	0	0	0
P1101	P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE ISOLATORS	0	0	0	0	0	0	0	0	0	0	0	0
P1102	P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-BIAS BATTERIES	0	0	0	0	0	0	0	0	0	0	0	0
P1103	P3-70 DO YOU PERFORM TASKS ON ANODES	0	0	0	0	0	0	0	0	0	0	0	0
P1104	P3-71 DO YOU PERFORM TASKS ON ANODE COOLING FINS	0	0	0	0	0	0	0	0	0	0	0	0
P1105	P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS	0	0	0	0	0	0	0	0	0	0	0	0
P1106	P3-73 DO YOU PERFORM TASKS ON HEATER LEADS	0	0	0	0	0	0	0	0	0	0	0	0
P1107	P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES	2	0	0	0	5	0	0	0	0	25	0	0
P1108	P3-75 DO YOU PERFORM TASKS ON CATHODES	2	0	0	0	5	0	0	0	0	25	0	0
P1109	P3-76 DO YOU PERFORM TASKS ON MAGNETS	0	0	0	0	0	0	0	0	0	0	0	0
Q1110	Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS	26	4	30	5	21	0	39	14	0	25	0	0
Q1111	Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS REGISTERS	31	4	39	5	21	0	50	14	0	25	0	0
Q1112	Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS	29	0	39	0	16	0	50	7	0	25	0	0
Q1113	Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS	29	0	30	0	16	0	39	7	0	25	0	0
Q1114	Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	29	4	39	5	16	0	50	7	0	25	0	0
Q1115	Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF REGISTERS	29	0	35	0	21	0	44	14	0	25	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
Q1116	Q1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED	36	8	43	10	26	0	56	21	0	25	0	0
Q1117	Q2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB	33	16	30	19	37	0	33	29	0	50	8	0
	STORAGE DEVICES												
Q1118	Q2-02 DO YOU USE OR REFER TO DELAY LINES	17	0	22	0	11	0	28	0	0	25	0	0
Q1119	Q2-03 DO YOU USE OR REFER TO MAGNETIC CORES	5	0	9	0	0	0	11	0	0	0	0	0
Q1120	Q2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS	2	0	4	0	0	0	6	0	0	0	0	0
Q1121	Q2-05 DO YOU USE OR REFER TO MAGNETIC TAPES	7	0	13	0	0	0	17	0	0	0	0	0
Q1122	Q2-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR MEMORY SYSTEMS	12	0	17	0	5	0	22	7	0	0	0	0
Q1123	Q2-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY SYSTEMS	5	0	9	0	0	0	11	0	0	0	0	0
Q1124	Q2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS	5	0	9	0	0	0	6	0	0	0	0	0
Q1125	Q2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES	17	0	22	0	11	0	28	0	0	25	0	0
Q1126	Q3-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D) CONVERTERS, OR BINARY-TO-DECIMAL READOUT CONVERTERS	36	8	35	0	37	50	39	29	0	50	0	0
	DIGITAL TO ANALOG CONVERTERS												
Q1127	Q3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT VOLTAGES	26	8	26	0	26	50	33	14	0	50	0	0
Q1128	Q3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE RESISTORS	19	4	22	0	16	25	28	7	0	25	0	0
Q1129	Q3-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS	29	4	30	0	26	25	33	14	0	50	0	0
Q1130	Q3-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	17	4	17	0	16	25	22	7	0	25	0	0
Q1131	Q3-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	19	4	17	0	21	25	22	7	0	50	0	0
Q1132	Q3-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	19	4	17	0	21	25	22	7	0	50	0	0
Q1133	Q3-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	14	4	9	0	21	25	11	7	0	50	0	0
Q1134	Q3-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	10	0	9	0	11	0	11	7	0	25	0	0
Q1135	Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS	17	4	22	0	11	25	28	7	0	0	0	0
Q1136	Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS	14	4	17	0	11	25	22	7	0	0	0	0
Q1137	Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS	14	4	17	0	11	25	22	7	0	0	0	0
Q1138	Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS	17	4	22	0	11	25	28	7	0	0	0	0
Q1139	Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS	5	8	4	0	5	50	6	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK		SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
		PHANTASTRONS												
R1140	R1-01	DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR PRESENT JOB	0	0	0	0	0	0	0	0	0	0	0	0
		SCHMITT TRIGGERS												
R1141	R2-01	IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS	31	16	30	10	32	50	39	21	0	50	8	0
R1142	R2-02	DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS	33	16	35	10	32	50	39	21	0	50	8	0
R1143	R2-03	DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS	31	12	35	10	24	25	39	21	0	25	8	0
		CABLE FABRICATION												
R1144	R3-01	IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES	48	28	48	19	47	100	50	36	50	75	8	100
R1145	R3-02	DO YOU FABRICATE COAXIAL CABLES	57	16	65	10	47	50	56	36	100	75	8	50
		INPUT/OUTPUT DEVICES												
S1146	S1-01	IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON VISUAL READOUT SYSTEMS	45	16	57	10	32	50	61	36	50	0	0	0
S1147	S1-02	DO YOU PERFORM ANY TASKS ON NIXIE LIGHTS OR NIXIE LIGHT DECODER SYSTEMS	19	8	17	0	11	50	22	14	0	0	0	0
S1148	S1-03	DO YOU ANALYZE NIXIE LIGHT DECODER SYSTEMS USING BOOLEAN ALGEBRA	7	4	9	0	5	25	11	0	0	0	0	0
		PHOTO SENSITIVE DEVICES												
S1149	S2-01	DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB	20	16	26	10	24	50	28	36	0	0	15	0
S1150	S3-01	IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS	19	24	22	24	16	25	22	0	0	50	8	0
S1151	S3-02	DO YOU MEASURE EXCITATION FREQUENCIES	12	12	17	10	5	25	22	7	0	0	0	0
S1152	S3-03	DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS	10	16	13	14	5	25	17	0	0	25	0	0
S1153	S3-04	DO YOU USE OR REFER TO EXCITATION FREQUENCIES	10	12	17	10	0	25	22	0	0	0	0	0
S1154	S3-05	DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIPS	10	4	13	0	5	25	17	0	0	25	0	0
		SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS)												
S1155	S3-06	DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	19	24	17	24	21	25	22	7	0	50	8	0
S1156	S3-07	DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	21	12	22	10	21	25	22	7	0	50	0	0
S1157	S3-08	DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	24	20	26	19	21	25	28	7	0	50	0	0
S1158	S3-09	DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	19	16	22	14	16	25	22	7	0	25	8	0
		INFRARED												
T1159	T1-01	DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS	43	24	39	19	47	50	44	29	0	100	31	0
T1160	T1-02	DO YOU INSPECT INFRARED SYSTEMS	38	12	35	5	42	50	39	21	0	100	8	0
T1161	T1-03	DO YOU CLEAN INFRARED SYSTEMS	38	12	35	5	42	50	39	21	0	100	8	0
T1162	T1-04	DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS	40	4	35	0	47	25	39	29	0	100	0	0
T1163	T1-05	DO YOU OPERATE INFRARED SYSTEMS	38	8	35	0	42	50	39	21	0	100	0	0
T1164	T1-06	DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS	38	12	35	5	42	50	39	21	0	100	8	0
T1165	T1-07	DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS	38	8	35	0	42	50	39	21	0	100	0	0
T1166	T1-08	DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS	38	0	35	0	42	0	39	21	0	100	0	0
T1167	T1-09	DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS	38	12	35	5	42	50	39	21	0	100	8	0
T1168	T1-10	DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS	36	0	30	0	42	0	33	21	0	100	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	BY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 216
T1169	T1-11 DO YOU USE OR REFER TO FAR REGION	31	0	35	0	26	0	39	21	0	25	0	0
T1170	T1-12 DO YOU USE OR REFER TO INTERMEDIATE REGION	31	0	35	0	26	0	39	21	0	25	0	0
T1171	T1-13 DO YOU USE OR REFER TO NEAR REGION	29	0	38	0	26	0	33	21	0	25	0	0
T1172	T1-14 DO YOU USE OR REFER TO MICRON	36	0	35	0	37	0	39	21	0	75	0	0
T1173	T1-15 DO YOU USE OR REFER TO GRAY BODIES	36	4	35	5	37	0	39	29	0	50	8	0
T1174	T1-16 DO YOU USE OR REFER TO BLACK BODIES	38	4	39	5	37	0	44	29	0	50	8	0
T1175	T1-17 DO YOU USE OR REFER TO ABSORPTION	38	8	39	5	37	25	44	29	0	50	8	0
T1176	T1-18 DO YOU USE OR REFER TO SCATTERING	33	8	35	5	32	25	44	29	0	25	8	0
T1177	T1-19 DO YOU USE OR REFER TO ABSOLUTE ZERO	36	0	35	0	37	0	39	29	0	50	0	0
T1178	T1-20 DO YOU PERFORM TASKS ON BLITZ	2	0	0	0	5	0	0	7	0	0	0	0
T1179	T1-21 DO YOU PERFORM TASKS ON TARGET BUTTONS	2	0	0	0	5	0	0	7	0	0	0	0
T1180	T1-22 DO YOU PERFORM TASKS ON ERECTOR LENSES	5	4	4	0	5	25	0	7	0	0	0	0
T1181	T1-23 DO YOU PERFORM TASKS ON OCULAR LENSES	10	4	9	0	11	25	11	7	0	25	0	0
T1182	T1-24 DO YOU PERFORM TASKS ON CORRECTION LENSES	12	8	17	5	5	25	22	7	0	0	0	0
T1183	T1-25 DO YOU PERFORM TASKS ON FILTERS	21	16	17	10	26	50	22	14	0	50	8	0
T1184	T1-26 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS	19	4	22	0	16	25	22	7	0	25	0	0
T1185	T1-27 DO YOU PERFORM TASKS ON PLANE MIRRORS	26	12	22	5	32	50	28	14	0	75	0	0
T1186	T2-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS	62	0	65	0	58	0	67	57	100	50	0	0
T1187	T2-02 DO YOU INSPECT LASER SYSTEMS LASERS	60	0	57	0	63	0	56	64	100	50	0	0
T1188	T2-03 DO YOU CLEAN LASER SYSTEMS	60	0	57	0	63	0	56	64	100	50	0	0
T1189	T2-04 DO YOU OPERATE LASER SYSTEMS	60	0	57	0	63	0	56	64	100	50	0	0
T1190	T2-05 DO YOU OPERATE LASER SYSTEMS	60	0	57	0	63	0	56	64	100	50	0	0
T1191	T2-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS	60	0	57	0	63	0	56	64	100	50	0	0
T1192	T2-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS	60	0	57	0	63	0	56	64	100	50	0	0
T1193	T2-08 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS	48	0	43	0	53	0	44	50	50	50	0	0
T1194	T2-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS	60	0	57	0	63	0	56	64	100	50	0	0
T1195	T2-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS	50	0	43	0	58	0	44	57	50	50	0	0
T1196	T2-11 DO YOU USE OR REFER TO ANGSTROMS (A)	43	0	43	0	42	0	50	43	0	25	0	0
T1197	T2-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS	36	0	43	0	26	0	44	36	50	0	0	0
T1198	T2-13 DO YOU USE OR REFER TO GROUND STATE	40	0	48	0	32	0	56	36	0	25	0	0
T1199	T2-14 DO YOU USE OR REFER TO EXCITED STATE	45	0	48	0	42	0	56	43	0	25	0	0
T1200	T2-15 DO YOU USE OR REFER TO PACKET OF RADIATION	26	0	26	0	26	0	33	29	0	0	0	0
T1201	T2-16 DO YOU USE OR REFER TO PHOTONS	38	0	39	0	37	0	50	43	0	0	0	0
T1202	T2-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSION	38	0	43	0	32	0	50	36	0	25	0	0
T1203	T2-18 DO YOU USE OR REFER TO STIMULATED EMISSION	38	0	39	0	37	0	50	36	0	25	0	0
T1204	T2-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE	43	0	43	0	42	0	50	43	50	25	0	0
T1205	T2-20 DO YOU USE OR REFER TO INVERSION LEVEL	21	0	22	0	21	0	22	21	0	0	0	0
T1206	T2-21 DO YOU USE OR REFER TO MONOCHROMATIC	29	0	30	0	26	0	33	21	0	25	0	0
T1207	T2-22 DO YOU WORK WITH ACTIVE MATERIALS	29	0	22	0	26	0	22	21	0	25	0	0
T1208	T2-23 DO YOU WORK WITH PUMPING SOURCES	40	0	43	0	37	0	50	36	0	25	0	0
T1209	T2-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS	38	0	43	0	32	0	50	29	50	25	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

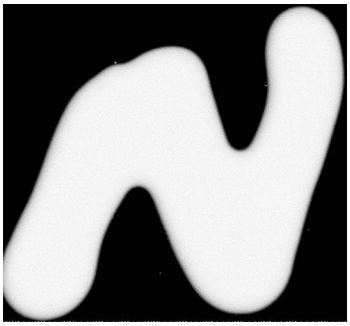
	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
T1210	T2-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS	38	0	43	0	32	0	44	29	50	25	0	0
T1211	T2-26 DO YOU WORK WITH HELICAL FLASHTUBES	36	0	30	0	42	0	33	43	0	25	0	0
T1212	T2-27 DO YOU WORK WITH RUBY	43	0	39	0	47	0	39	43	50	50	0	0
T1213	T2-28 DO YOU WORK WITH HELIUM-NEON	29	0	26	0	32	0	22	29	50	50	0	0
T1214	T2-29 DO YOU WORK WITH HELIUM-XENON	17	0	13	0	21	0	17	7	0	50	0	0
T1215	T2-30 DO YOU WORK WITH XENON	19	0	13	0	26	0	17	21	0	50	0	0
T1216	T2-31 DO YOU WORK WITH CESIUM-HELIUM	10	0	9	0	11	0	6	7	0	25	0	0
T1217	T2-32 DO YOU WORK WITH ARGON	12	0	13	0	11	0	17	0	0	25	0	0
T1218	T2-33 DO YOU WORK WITH NEODYMIUM IN GLASS	14	0	17	0	11	0	17	7	0	25	0	0
T1219	T2-34 DO YOU WORK WITH GALLIUM ARSENIDE	19	0	26	0	11	0	28	7	0	25	0	0
T1220	T3-01 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS DIRECT VIEW STORAGE (DVST) OR MULTIPLE MODE STORAGE TUBES (MMST)	7	8	13	5	0	25	6	0	0	0	8	0
		DISPLAY TUBES											
T1221	T3-02 DO YOU INSPECT DVST OR MMST	7	8	13	5	0	25	6	0	0	0	8	0
T1222	T3-03 DO YOU CLEAN DVST OR MMST	7	8	13	5	0	25	6	0	0	0	8	0
T1223	T3-04 DO YOU ADJUST OR CALIBRATE DVST OR MMST	5	4	9	0	0	25	6	0	0	0	0	0
T1224	T3-05 DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR MMST	7	8	13	5	0	25	6	0	0	0	8	0
T1225	T3-06 DO YOU TROUBLESHOOT DVST OR MMST CIRCUITS	5	8	9	5	0	25	6	0	0	0	8	0
T1226	T3-07 DO YOU REMOVE OR REPLACE DVST OR MMST TUBES FROM MAJOR ASSEMBLIES OR UNITS	5	8	9	5	0	25	6	0	0	0	8	0
T1227	T3-08 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF DVST	2	0	4	0	0	0	6	0	0	0	0	0
T1228	T3-09 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF MMST	2	0	4	0	0	0	6	0	0	0	0	0
T1229	T3-10 DO YOU PERFORM TASKS ON FLOOD GUNS	0	0	0	0	0	0	0	0	0	0	0	0
T1230	T3-11 DO YOU PERFORM TASKS ON WRITE GUNS	0	0	0	0	0	0	0	0	0	0	0	0
T1231	T3-12 DO YOU PERFORM TASKS ON ATTACK GUNS	0	0	0	0	0	0	0	0	0	0	0	0
T1232	T3-13 DO YOU PERFORM TASKS ON ERASE GUNS	0	0	0	0	0	0	0	0	0	0	0	0
T1233	T3-14 DO YOU PERFORM TASKS ON STORAGE GRIDS	0	0	0	0	0	0	0	0	0	0	0	0
U1234	U1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY PROGRAMMING TASKS	5	4	9	0	0	25	11	0	0	0	0	0
U1235	U1-02 DO YOU USE OR REFER TO DECIMAL SYSTEMS	PROGRAMMING											
U1236	U1-03 DO YOU USE OR REFER TO PROGRAMS	2	0	4	0	0	0	6	0	0	0	0	0
U1237	U1-04 DO YOU USE OR REFER TO HEXIDECIMAL SYSTEMS	5	0	9	0	0	0	11	0	0	0	0	0
U1238	U1-05 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS	5	0	4	0	5	0	6	0	0	25	0	0
U1239	U1-06 DO YOU USE OR REFER TO FOUR SYSTEMS	0	4	0	0	0	25	0	0	0	0	0	0
U1240	U1-07 DO YOU USE OR REFER TO BINARY SYSTEMS	0	0	0	0	0	0	0	0	0	0	0	0
U1241	U1-08 DO YOU USE OR REFER TO TIME-SHARING	2	4	4	0	0	25	6	0	0	0	0	0
U1242	U1-09 DO YOU USE OR REFER TO DATA WORDS	0	0	0	0	0	0	0	0	0	0	0	0
U1243	U1-10 DO YOU USE OR REFER TO ADDRESS WORDS	5	0	9	0	0	0	11	0	0	0	0	0
U1244	U1-11 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS	5	0	9	0	0	0	11	0	0	0	0	0
U1245	U1-12 DO YOU USE OR REFER TO STEERING/INFORMATION	2	0	4	0	0	0	6	0	0	0	0	0
U1246	U1-13 DO YOU USE OR REFER TO INFORMATION WORDS	5	0	9	0	0	0	11	0	0	0	0	0
U1247	U1-14 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING	2	0	4	0	0	0	6	0	0	0	0	0
U1248	U1-15 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING	2	0	4	0	0	0	6	0	0	0	0	0

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS GPSM10 PAGE 44

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK	SPC 202	SPC 203	SPC 204	SPC 205	SPC 206	SPC 207	SPC 210	SPC 211	SPC 212	SPC 213	SPC 214	SPC 215
U1249	U1-16 DO YOU PERFORM TASKS ON INPUT DEVICES	0	4	0	0	0	25	0	0	0	0	0	0
U1250	U1-17 DO YOU PERFORM TASKS ON STORAGE DEVICES	2	4	4	0	0	25	6	0	0	0	0	0
U1251	U1-18 DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS	0	0	0	0	0	0	0	0	0	0	0	0
U1252	U1-19 DO YOU PERFORM TASKS ON CONTROL SECTIONS	0	4	0	0	0	25	0	0	0	0	0	0
U1253	U1-20 DO YOU PERFORM TASKS ON OUTPUT DEVICES	2	4	4	0	0	25	6	0	0	0	0	0
U1254	U1-21 DO YOU PERFORM TASKS ON POWER SUPPLIES	2	4	4	0	0	25	6	0	0	0	0	0
U1255	U2-01 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION	26	12	26	5	26	50	22	14	50	50	8	0
U1256	U2-02 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS	7	0	9	0	5	0	11	0	0	0	0	0
U1257	U2-03 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS	7	0	9	0	5	0	11	0	0	0	0	0
U1258	U2-04 DUMMY TASK TO IDENTIFY INCUMBENTS WHO PERFORMED NO TASKS	0	0	0	0	0	0	0	0	0	0	0	0

DB AND POWER RATIOS



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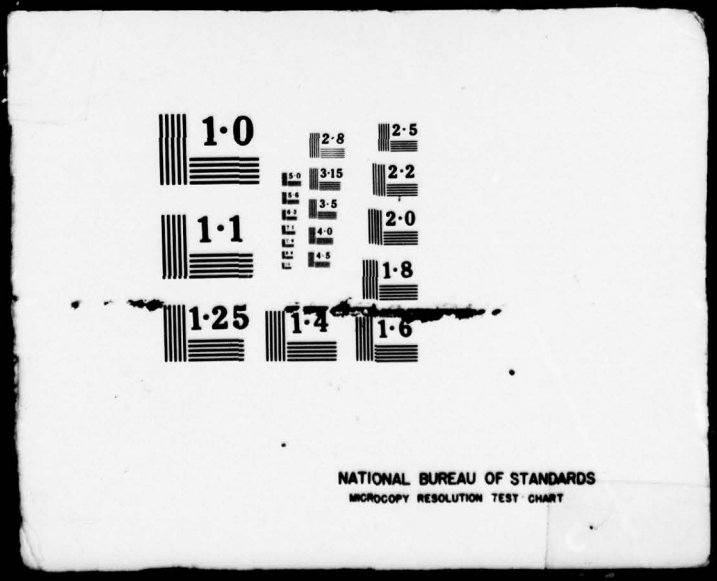

SUPPLEMENTARY

INFORMATION

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Teaching methods
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report summarizes the results of the administration of the Electronic Principles Inventory to airmen assigned to Avionics Sensor Systems Specialty (AFSC 329X0 A and B). The report gives a detailed listing of the technical tasks and knowledge needed to perform the jobs within the specialty or career ladder.

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This specialty has the following functions:

Installs, maintains, and repairs sensor system equipment. Performs preventive maintenance on avionic sensor systems equipment. Installs avionic sensor systems. Repairs avionic sensor systems. Maintains inspection and maintenance records. Supervises avionic sensor systems repair personnel.